

THE STATE OF TEXAS §
COUNTY OF TRAVIS §

CONTRACT FOR ENGINEERING SERVICES
Cost Plus Fixed Fee,
Unit Cost, Lump Sum, or Specified Rate
Indefinite Deliverable with Work Authorizations

THIS CONTRACT FOR ENGINEERING SERVICES is made by and between the State of Texas acting by and through the Texas Department of Transportation, 125 E. 11th St., Austin, Texas 78701, hereinafter called "State," and **H.W. Lochner, Inc.**, having its principal business address at **810 Hester's Crossing, Suite 225, Round Rock, Texas 78681**, hereinafter called "Engineer," for the purpose of contracting for engineering services.

WITNESSETH

WHEREAS, Government Code, Chapter 2254, Subchapter A, "Professional Services Procurement Act," provides for the procurement of engineering services; and

WHEREAS, 43 Texas Administrative Code §9.30 et seq. establishes the Texas Department of Transportation's policies and procedures for contracting for engineering services; and,

WHEREAS, the State desires to contract for engineering services generally described as **providing Construction Engineering Inspection (CEI) services to assist the State in managing its construction operations, before, during, and after the construction of improvements**; and,

WHEREAS, the State has selected the Engineer to provide the needed services and the Engineer has agreed to provide the services subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, the State and the Engineer, in consideration of the mutual covenants and agreements herein contained, do hereby mutually agree as follows.

AGREEMENT

ARTICLE 1. SCOPE OF SERVICES. The State and the Engineer will furnish items and perform those services for fulfillment of the contract as identified in Attachment B, Services to be Provided by the State and Attachment C, Services to be Provided by the Engineer. All services provided by the Engineer will conform to standard engineering practices and applicable rules and regulations of the Texas Engineering Practices Act and the rules of the Texas Board of Professional Engineers.

ARTICLE 2. CONTRACT PERIOD. This contract becomes effective when fully executed by all parties hereto and it shall terminate at the close of business on **September 30, 2019** unless the contract period is: (1) modified by written supplemental agreement prior to the date of termination as set forth in Attachment A, General Provisions, Article 6, Supplemental Agreements; (2) extended due to a work suspension as provided for in Attachment A, Article 3, Paragraph C; or (3) otherwise terminated in accordance with Attachment A, General Provisions, Article 15, Termination. Any work performed or cost incurred before or after the contract period shall be ineligible for reimbursement.

The maximum contract time is the time needed to complete all work authorizations that will be issued in the first two years of the contract. All work authorizations must be issued within the initial two-year period, starting from the contract execution date.

ARTICLE 3. COMPENSATION.

A. Maximum Amount Payable. The maximum amount payable under this contract without modification is shown in Attachment E, Fee Schedule. Payment under this contract beyond the end of the current fiscal biennium is subject to availability of appropriated funds. If funds are not appropriated, this contract shall be terminated immediately with no liability to either party.

B. Basis of Payment. The basis of payment is identified in Attachment E, Fee Schedule. Reimbursement of costs incurred under a work authorization shall be in accordance with Attachment E, Fee Schedule.

C. Reimbursement of Eligible Costs. To be eligible for reimbursement, the Engineer's costs must (1) be incurred in accordance with the terms of a valid work authorization; (2) be in accordance with Attachment E, Fee Schedule; and (3) comply with cost principles set forth at 48 CFR Part 31, Federal Acquisition Regulation (FAR 31). Satisfactory progress of work shall be maintained as a condition of payment.

D. Engineer Payment of Subproviders. No later than ten (10) days after receiving payment from the State, the Engineer shall pay all subproviders for work performed under a subcontract authorized hereunder. The State may withhold all payments that have or may become due if the Engineer fails to comply with the ten-day payment requirement. The State may also suspend the work under this contract or any work authorization until subproviders are paid. This requirement also applies to all lower tier subproviders, and this provision must be incorporated into all subcontracts.

ARTICLE 4. PAYMENT REQUIREMENTS

A. Monthly Billing Statements. The Engineer shall request reimbursement of costs incurred by submitting the original and one copy of an itemized billing statement in a form acceptable to the State. The Engineer is authorized to submit requests for reimbursement no more frequently than monthly and no later than ninety (90) days after costs are incurred.

B. Billing Statement. The billing statement shall show the work authorization number for each work authorization included in the billing, the total amount earned to the date of submission, and the amount due and payable as of the date of the current billing statement for each work authorization. The billing statement shall indicate if the work has been completed or if the billing is for partial completion of the work. The fixed fee will be paid in proportion to the percentage of work completed per work authorizations.

C. Overhead Rates. The Engineer shall use the provisional overhead rate indicated in Attachment E. If a periodic escalation of the provisional overhead rate is specified in Attachment E, the effective date of the revised provisional overhead rate must be included. For lump sum contracts, the overhead rate remains unchanged for the entire contract period.

D. Thirty Day Payments. Upon receipt of a billing statement that complies with all invoice requirements set forth in this Article, the State shall make a good faith effort to pay the amount which is due and payable within thirty (30) days.

E. Withholding Payments. The State reserves the right to withhold payment of the Engineer's billing statement in the event of any of the following: (1) If a dispute over the work or costs thereof is not resolved within a thirty day period; (2) pending verification of satisfactory work performed; (3) the Engineer becomes a delinquent obligor as set forth in Section 231.006 of the Family Code; (4) required reports are not received; or (5) the State Comptroller of Public Accounts will not issue a warrant to the Engineer. In the event that payment is withheld, the State shall notify the Engineer and give a remedy that would allow the State to release the payment.

F. Required Reports.

(1) As required in Attachment H, Disadvantaged Business Enterprise or Historically Underutilized Business Program Requirements, the Engineer shall submit Progress Assessment Reports to report actual payments made to Disadvantaged Business Enterprises or Historically Underutilized Businesses. One copy shall be submitted with each billing statement and one copy shall be submitted to the address included in Attachment H, Disadvantaged Business Enterprise or Historically Underutilized Business Program Requirements.

(2) Prior to contract closeout, the Engineer shall submit a Final Report (Exhibit H-4) to the address set forth in Attachment H.

(3) The Engineer shall submit a separate report with each billing statement showing the percent completion of the work accomplished during the billing period and the percent completion to date, and any additional written report requested by the State to document the progress of the work.

G. Subproviders and Suppliers List. Pursuant to requirements of 43 Texas Administrative Code §9.50 et seq., the Engineer must provide the State a list (Exhibit H-5/DBE or Exhibit H-6/HUB) of all Subproviders and suppliers that submitted quotes or proposals for subcontracts. This list shall include subproviders and suppliers names, addresses, telephone numbers, and type of work desired.

H. Debt to the State. If the State Comptroller of Public Accounts is prohibited from issuing a warrant or initiating an electronic funds transfer to the Engineer because of a debt owed to the State, the State shall apply all payment due the Engineer to the debt or delinquent tax until the debt or delinquent tax is paid in full.

I. Audit. The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

ARTICLE 5. WORK AUTHORIZATIONS. The State will issue work authorizations using the form included in Attachment D (Work Authorizations and Supplemental Work Authorizations) to authorize all work under this contract. The Engineer must sign and return a work authorization within seven (7) working days after receipt. Refusal to accept a work authorization may be grounds for termination of the contract. The State shall not be responsible for actions by the Engineer or any costs incurred by the Engineer relating to work not directly associated with or prior to the execution of a work authorization. Terms and conditions governing the use of work authorizations are set forth in Attachment A, General Provisions, Article 1.

ARTICLE 6. SIGNATORY WARRANTY. The undersigned signatory for the Engineer hereby represents and warrants that he or she is an officer of the organization for which he or she has executed this contract and that he or she has full and complete authority to enter into this contract on behalf of the firm. These representations and warranties are made for the purpose of inducing the State to enter into this contract.

ARTICLE 7. All notices to either party by the other required under this agreement shall be delivered personally or sent by certified or U.S. mail, postage prepaid, addressed to such party at the following addresses:

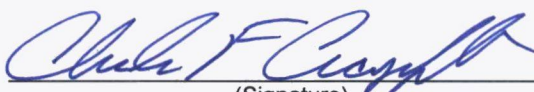
Engineer:	State:
Project Manager H.W. Lochner, Inc. 810 Hester's Crossing, Suite 225 Round Rock, Texas 78681	Director, Professional Engineering Procurement Services Texas Department of Transportation 125 E. 11 th Street Austin, Texas 78701

All notices shall be deemed given on the date so delivered or so deposited in the mail, unless otherwise provided herein. Either party may change the above address by sending written notice of the change to the other party. Either party may request in writing that such notices shall be delivered personally or by certified U.S. mail and such request shall be honored and carried out by the other party.


ARTICLE 8. INCORPORATION OF PROVISIONS. Attachments A through H are attached hereto and incorporated into this contract as if fully set forth herein.

IN WITNESS WHEREOF, the **State** and the **Engineer** have executed this contract in duplicate.

THE ENGINEER


 (Signature)
 Charles F. Craycraft, P.E.
 (Printed Name)
 Chief Operating Officer
 (Title)
 9/20/2015
 (Date)

THE STATE OF TEXAS


 (Signature)
 William L. Hale, P.E.
 Chief Engineer
 (Title)
 10/11/15
 (Date)

**Attachments to Contract for Engineering Services
Incorporated into the Contract by Reference**

Attachments	Title
A	General Provisions
B	Services to Be Provided by the State
C	Services to Be Provided by the Engineer
D	Work Authorization and Supplemental Work Authorization
E	Fee Schedule
F	Not Applicable
G	Computer Graphics Files for Document and Information Exchange, if applicable
H-FG	Disadvantaged Business Enterprise (DBE) for Federal Funded Professional or Technical Services Contracts – See Attachment H Instructions
H – FN	Disadvantaged Business Enterprise (DBE) for Race-Neutral Professional or Technical Services Contracts – See Attachment H Instructions N/A
H – SG	Historically Underutilized Business (HUB) Requirements for State Funded Professional or Technical Services Contracts – State of Texas HUB. Subcontracting plan required – See Attachment H Instructions N/A
H – SN	Historically Underutilized Business (HUB) Requirements for State Funded Professional or Technical Services Contracts – No State of Texas HUB N/A
Exhibits	Title
H – 1	Subprovider Monitoring System Commitment Worksheet
H – 2	Subprovider Monitoring System Commitment Agreement
H – 3	Monthly Progress Assessment Report
H - 4	Subprovider Monitoring System Final Report
H - 5	Federal Subproviders and Supplier Information
H - 6	HUB Subcontracting Plan (HSP) Prime Contractor Progress Assessment Report N/A

ATTACHMENT A**GENERAL PROVISIONS****INDEX TO PROVISIONS**

Article	Title
1	Work Authorizations
2	Progress
3	Suspension of Work
4	Additional Work
5	Changes in Work
6	Supplemental Agreements
7	Ownership of Data
8	Public Information
9	Personnel, Equipment and Material
10	License for TxDOT Logo Use
11	Subcontracting
12	Inspection of Work
13	Submission of Reports
14	Violation of Contract Terms
15	Termination
16	Compliance with Laws
17	Indemnification
18	Engineer's Responsibility
19	Non-collusion
20	Insurance
21	Gratuities
22	DBE/HUB Requirements
23	Maintenance, Retention and Audit of Records
24	Nepotism Disclosure
25	Civil Rights Compliance
26	Patent Rights
27	Computer Graphics Files
28	Child Support Certification
29	Disputes
30	Successors and Assigns
31	Severability
32	Prior Contracts Superseded
33	Conflict of Interest
34	Office of Management and Budget (OMB) Audit Requirements
35	Debarment Certifications
36	E-Verify Certification
37	Restrictions on Employment of Former State Officer or Employee

ATTACHMENT A

GENERAL PROVISIONS

ARTICLE 1. WORK AUTHORIZATIONS

A. Use. The Engineer shall not begin any work until the State and the Engineer have signed a work authorization. Costs incurred by the Engineer before a work authorization is fully executed or after the completion date specified in the work authorization are not eligible for reimbursement. All work must be completed on or before the completion date specified in the work authorization, and no work authorization completion date shall extend beyond the contract period set forth in Article 2 of the contract (Contract Period).

The maximum contract time is the time needed to complete all work authorizations that will be issued in the first two years of the contract. All work authorizations must be issued within the initial two-year period, starting from the contract execution date.

B. Contents. Each work authorization will specify (1) the types of services to be performed; (2) a period of performance with a beginning and ending date; (3) a full description of the work to be performed; (4) a work schedule with milestones; (5) a cost not to exceed amount, (6) the basis of payment whether cost plus fixed fee, unit cost, lump sum, or specified rate; and (7) a work authorization budget calculated using fees set forth in Attachment E, Fee Schedule. The Engineer is not to include additional contract terms and conditions in the work authorization. In the event of any conflicting terms and conditions between the work authorization and the contract, the terms and conditions of the contract shall prevail and govern the work and costs incurred.

C. Work Authorization Budget. A work authorization budget shall set forth in detail (1) the computation of the estimated cost of the work as described in the work authorization, (2) the estimated time (hours/days) required to complete the work at the hourly rates established in Attachment E, Fee Schedule; (3) a work plan that includes a list of the work to be performed, (4) a stated maximum number of calendar days to complete the work, and (5) a cost-not-to-exceed-amount or unit or lump sum cost and the total cost or price of the work authorization. The State will not pay items of cost that are not included in or rates that exceed those approved in Attachment E.

D. No Guaranteed Work. Work authorizations are issued at the discretion of the State. While it is the State's intent to issue work authorizations hereunder, the Engineer shall have no cause of action conditioned upon the lack or number of work authorizations issued.

E. Incorporation into Contract. Each work authorization shall be signed by both parties and become a part of the contract. No work authorization will waive the State's or the Engineer's responsibilities and obligations established in this contract. The Engineer shall promptly notify the State of any event that will affect completion of the work authorization.

F. Supplemental Work Authorizations. Before additional work may be performed or additional costs incurred, a change in a work authorization shall be enacted by a written supplemental work authorization in the form identified and attached hereto as Attachment D. Both parties must execute a supplemental work authorization within the period of performance specified in the work authorization. The State shall not be responsible for actions by the Engineer or any costs incurred by the Engineer relating to additional work not directly associated with the performance or prior to the execution of the work authorization. The Engineer shall allow adequate time for review and approval of the supplemental work authorization by the State prior to expiration of the work authorization. Any supplemental work authorization must be executed by both parties within the time period established in Article 2 of the contract, (Contract Period). Under no circumstances will a work authorization be allowed to extend beyond the contract's expiration date or will the total amount of funds exceed the maximum amount payable set forth in Article 3A of the contract (Compensation).

F-1. More Time Needed. If the Engineer determines or reasonably anticipates that the work authorized in a work authorization cannot be completed before the specified completion date, the Engineer shall promptly notify the State. The State may, at its sole discretion, extend the work authorization period by execution of supplemental authorization, using the form attached hereto as Attachment D.

F-2. Changes in Scope. Changes that would modify the scope of the work authorized in a work authorization must be enacted by a written supplemental work authorization. The Engineer must allow

adequate time for the State to review and approve any request for a time extension prior to expiration of the work authorization. If the change in scope affects the amount payable under the work authorization, the Engineer shall prepare a revised work authorization budget for the State's approval.

G. New Work Authorization. If the Engineer does not complete the services authorized in a work authorization before the specified completion date and has not requested a supplemental work authorization, the work authorization shall terminate on the completion date. At the sole discretion of the State, it may issue a new work authorization to the Engineer for the incomplete work using the unexpended balance of the preceding work authorization for the project. If approved by the State, the Engineer may calculate any additional cost for the incomplete work using the rates set forth in the preceding work authorization and in accordance with Attachment E, Fee Schedule.

H. Emergency Work Authorizations. The State, at its sole discretion, may accept the Engineer's signature on a faxed copy of the work authorization as satisfying the requirements for executing the work authorization, provided that the signed original is received by the State within five business days from the date on the faxed copy.

I. Proposal Work Authorizations. The State may issue a proposal work authorization under which the Engineer will submit a proposal for additional work. The proposal must be for additional work that is within the defined scope of work under this contract. The amount to be paid for a proposal work authorization will be a lump sum for each proposal. The lump sum payment will be no less than two percent (2%) and no more than four percent (4%) of the State's estimate of the cost of the additional work. The Engineer may elect without penalty not to submit a proposal in response to a proposal work authorization. Any proposal submitted in response to a proposal work authorization will be the sole property of the State. The State may, at its option, issue similar or identical proposal work authorizations under other contracts, and the proposals submitted in response to the various proposal work authorizations may be compared by the State for the purpose of determining the contract under which the work will be awarded. The determination of the contract under which the work will be awarded will be based on the design characteristics of the proposal and the Engineer's qualifications and will not consider the Engineer's rates.

J. Deliverables. Upon satisfactory completion of the work authorization, the Engineer shall submit the deliverables as specified in the executed work authorization to the State for review and acceptance.

ARTICLE 2. PROGRESS

A. Progress meetings. The Engineer shall from time to time during the progress of the work confer with the State. The Engineer shall prepare and present such information as may be pertinent and necessary or as may be requested by the State in order to evaluate features of the work.

B. Conferences. At the request of the State or the Engineer, conferences shall be provided at the Engineer's office, the office of the State, or at other locations designated by the State. These conferences shall also include evaluation of the Engineer's services and work when requested by the State.

C. Inspections. If federal funds are used to reimburse costs incurred under this contract, the work and all reimbursements will be subject to periodic review by the U. S. Department of Transportation.

D. Reports. The Engineer shall promptly advise the State in writing of events that have a significant impact upon the progress of a work authorization, including:

1. problems, delays, adverse conditions that will materially affect the ability to meet the time schedules and goals, or preclude the attainment of project work units by established time periods; this disclosure will be accompanied by statement of the action taken or contemplated, and any State or federal assistance needed to resolve the situation; and
2. favorable developments or events which enable meeting the work schedule goals sooner than anticipated.

E. Corrective Action. Should the State determine that the progress of work does not satisfy the milestone schedule set forth in a work authorization, the State shall review the work schedule with the Engineer to determine the nature of corrective action needed.

ARTICLE 3. SUSPENSION OF WORK AUTHORIZATION

A. Notice. Should the State desire to suspend a work authorization but not terminate the contract, the State may verbally notify the Engineer followed by written confirmation, giving (30) thirty days notice. Both parties may waive the thirty-day notice in writing.

B. Reinstatement. A work authorization may be reinstated and resumed in full force and effect within sixty (60) business days of receipt of written notice from the State to resume the work. Both parties may waive the sixty-day notice in writing.

C. Contract Period Not Affected. If the State suspends a work authorization, the contract period as determined in Article 2 of the contract (Contract Period) is not affected and the contract and the work authorization will terminate on the date specified unless the contract or work authorization is amended to authorize additional time.

D. Limitation of Liability. The State shall have no liability for work performed or costs incurred prior to the date authorized by the State to begin work, during periods when work is suspended, or after the completion date of the contract or work authorization.

ARTICLE 4. ADDITIONAL WORK

A. Notice. If the Engineer is of the opinion that any assigned work is beyond the scope of this contract and constitutes additional work, it shall promptly notify the State in writing, presenting the facts of the work authorization and showing how the work authorization constitutes additional work.

B. Supplemental Agreement. If the State finds that the work does constitute additional work, the State shall so advise the Engineer and a written supplemental agreement will be executed as provided in General Provisions, Article 6, Supplemental Agreements.

C. Limitation of Liability. The State shall not be responsible for actions by the Engineer or any costs incurred by the Engineer relating to additional work not directly associated with or prior to the execution of a supplemental agreement.

ARTICLE 5. CHANGES IN WORK

A. Work Previously Submitted as Satisfactory. If the Engineer has submitted work in accordance with the terms of this contract but the State requests changes to the completed work or parts thereof which involve changes to the original scope of services or character of work under the contract, the Engineer shall make such revisions as requested and as directed by the State. This will be considered as additional work and paid for as specified under Article 4, Additional Work.

B. Work Does Not Comply with Contract. If the Engineer submits work that does not comply with the terms of this contract, the State shall instruct the Engineer to make such revision as is necessary to bring the work into compliance with the contract. No additional compensation shall be paid for this work.

C. Errors/Omissions. The Engineer shall make revisions to the work authorized in this contract which are necessary to correct errors or omissions appearing therein, when required to do so by the State. No additional compensation shall be paid for this work.

ARTICLE 6. SUPPLEMENTAL AGREEMENTS

A. Need. The terms of this contract may be modified if the State determines that there has been a significant increase or decrease in the duration, scope, cost, complexity or character of the services to be performed. A supplemental agreement will be executed to authorize such significant increases or decreases. Significant is defined to mean a cost increase of any amount and a cost decrease of twenty percent (20%) or more of the original estimated project cost.

B. Compensation. Additional compensation, if appropriate, shall be calculated as set forth in Article 3 of the contract (Compensation). Significant changes affecting the cost or maximum amount payable shall be defined to include but not be limited to new work not previously authorized or previously authorized services that will not be performed. The parties may reevaluate and renegotiate costs at this time.

C. When to Execute. Both parties must execute a supplemental agreement within the contract period specified in Article 2 of the contract (Contract Period).

ARTICLE 7. OWNERSHIP OF DATA

A. Work for Hire. All services provided under this contract are considered work for hire and as such all data, basic sketches, charts, calculations, plans, specifications, and other documents created or collected under the terms of this contract are the property of the State.

B. Disposition of Documents. All documents prepared by the Engineer and all documents furnished to the Engineer by the State shall be delivered to the State upon request by the State. The Engineer, at its own expense, may retain copies of such documents or any other data which it has furnished the State under this contract, but further use of the data is subject to permission by the State.

C. Release of Design Plan. The Engineer (1) will not release any roadway design plan created or collected under this contract except to its subproviders as necessary to complete the contract; (2) shall include a provision in all subcontracts which acknowledges the State's ownership of the design plan and prohibits its use for any use other than the project identified in this contract; and (3) is responsible for any improper use of the design plan by its employees, officers, or subproviders, including costs, damages, or other liability resulting from improper use. Neither the Engineer nor any subprovider may charge a fee for the portion of the design plan created by the State.

ARTICLE 8. PUBLIC INFORMATION AND CONFIDENTIALITY

A. Public Information. The State will comply with Government Code, Chapter 552, the Public Information Act, and 43 Texas Administrative Code §3.10 et seq. in the release of information produced under this contract.

B. Confidentiality. The Engineer shall not disclose information obtained from the State under this contract without the express written consent of the State.

C. Access to Information. The Engineer is required to make any information created or exchanged with the state pursuant to this contract, and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the state.

ARTICLE 9. PERSONNEL, EQUIPMENT AND MATERIAL

A. Engineer Resources. The Engineer shall furnish and maintain quarters for the performance of all services, in addition to providing adequate and sufficient personnel and equipment to perform the services required under the contract. The Engineer certifies that it presently has adequate qualified personnel in its employment for performance of the services required under this contract, or it will be able to obtain such personnel from sources other than the State.

B. Removal of Contractor Employee. All employees of the Engineer assigned to this contract shall have such knowledge and experience as will enable them to perform the duties assigned to them. The State may instruct the Engineer to remove any employee from association with work authorized in this contract if, in the sole opinion of the State, the work of that employee does not comply with the terms of this contract or if the conduct of that employee becomes detrimental to the work.

C. Replacement of Key Personnel. The Engineer must notify the State in writing as soon as possible, but no later than three business days after a project manager or other key personnel is removed from association with this contract, giving the reason for removal.

D. State Approval of Replacement Personnel. The Engineer may not replace the project manager or key personnel without prior consent of the State. The State must be satisfied that the new project manager or other key personnel is qualified to provide the authorized services. If the State determines that the new project manager or key personnel is not acceptable, the Engineer may not use that person in that capacity and shall replace him or her with one satisfactory to the State within forty-five (45) days.

E. Ownership of Acquired Property. Except to the extent that a specific provision of this contract states to the contrary, the State shall own all intellectual property acquired or developed under this contract and all

equipment purchased by the Engineer or its subcontractors under this contract. All intellectual property and equipment owned by the State shall be delivered to the State when the contract terminates, or when it is no longer needed for work performed under this contract, whichever occurs first.

ARTICLE 10. LICENSE FOR TxDOT LOGO USE

A. Grant of License; Limitations. The Engineer is granted a limited revocable non-exclusive license to use the registered TxDOT trademark logo (TxDOT Flying "T") on any deliverables prepared under this contract that are the property of the State. The Engineer may not make any use of the registered TxDOT trademark logo on any other materials or documents unless it first submits that request in writing to the State and receives approval for the proposed use. The Engineer agrees that it shall not alter, modify, dilute, or otherwise misuse the registered TxDOT trademark logo or bring it into disrepute.

B. Notice of Registration Required: The Engineer's use of the Flying 'T' under this article shall be followed by the capital letter R enclosed within a circle (®) that gives notice that the Flying 'T' is registered in the United States Patent and Trademark Office (USPTO).

C. No Assignment or Sublicense. The Engineer may not assign or sublicense the rights granted by this article without the prior written consent of the State.

D. Term of License. The license granted to the Engineer by this article shall terminate at the end of the term specified in Article 2 of this contract.

ARTICLE 11. SUBCONTRACTING

A. Prior Approval. The Engineer shall not assign, subcontract or transfer any portion of professional services related to the work under this contract without prior written approval from the State.

B. DBE/HUB Compliance. The Engineer's subcontracting program shall comply with the requirements of Attachment H of the contract (DBE/HUB Requirements).

C. Required Provisions. All subcontracts for professional services shall include the provisions included in Attachment A, General Provisions, and any provisions required by law. The Engineer is authorized to pay subproviders in accordance with the terms of the subcontract, and the basis of payment may differ from the basis of payment by the State to the Engineer.

D. Prior Review. Subcontracts for professional services in excess of \$25,000 may be reviewed by the State prior to performance of work thereunder.

E. Engineer Responsibilities. No subcontract relieves the Engineer of any responsibilities under this contract.

ARTICLE 12. INSPECTION OF WORK

A. Review Rights. The State and the U.S. Department of Transportation, when federal funds are involved, and any of their authorized representatives shall have the right at all reasonable times to review or otherwise evaluate the work performed hereunder and the premises in which it is being performed.

B. Reasonable Access. If any review or evaluation is made on the premises of the Engineer or a subprovider, the Engineer shall provide and require its subproviders to provide all reasonable facilities and assistance for the safety and convenience of the state or federal representatives in the performance of their duties.

ARTICLE 13. SUBMISSION OF REPORTS

All applicable study reports shall be submitted in preliminary form for approval by the State before a final report is issued. The State's comments on the Engineer's preliminary report must be addressed in the final report.

ARTICLE 14. VIOLATION OF CONTRACT TERMS

A. Increased Costs. Violation of contract terms, breach of contract, or default by the Engineer shall be grounds for termination of the contract, and any increased or additional cost incurred by the State arising from the Engineer's default, breach of contract or violation of contract terms shall be paid by the Engineer.

B. Remedies. This agreement shall not be considered as specifying the exclusive remedy for any default, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

ARTICLE 15. TERMINATION

A. Causes. The contract may be terminated before the stated completion date by any of the following conditions.

1. By mutual agreement and consent, in writing from both parties.
2. By the State by notice in writing to the Engineer as a consequence of failure by the Engineer to perform the services set forth herein in a satisfactory manner.
3. By either party, upon the failure of the other party to fulfill its obligations as set forth herein.
4. By the State for reasons of its own, not subject to the mutual consent of the Engineer, by giving thirty business days notice of termination in writing to the Engineer.
5. By the State, if the Engineer violates the provisions of Attachment A, General Provisions Article 21, Gratuities, or Attachment H, Disadvantaged Business Enterprise/Historically Underutilized Business Requirements.
6. By satisfactory completion of all services and obligations described herein.

B. Measurement. Should the State terminate this contract as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the Engineer. In determining the value of the work performed by the Engineer prior to termination, the State shall be the sole judge. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the State terminate this contract under paragraph (4) or (5) above, the Engineer shall not incur costs during the thirty-day notice period in excess of the amount incurred during the preceding thirty days.

C. Value of Completed Work. If the Engineer defaults in the performance of this contract or if the State terminates this contract for fault on the part of the Engineer, the State will give consideration to the following when calculating the value of the completed work: (1) the actual costs incurred (not to exceed the rates set forth in Attachment E, Fee Schedule) by the Engineer in performing the work to the date of default; (2) the amount of work required which was satisfactorily completed to date of default; (3) the value of the work which is usable to the State; (4) the cost to the State of employing another firm to complete the required work; (5) the time required to employ another firm to complete the work; and (6) other factors which affect the value to the State of the work performed.

D. Calculation of Payments. The State shall use the fee schedule set forth in Attachment E to the contract (Fee Schedule) in determining the value of the work performed up to the time of termination. In the case of partially completed engineering services, eligible costs will be calculated as set forth in Attachment E, Fee Schedule. The sum of the provisional overhead percentage rate for payroll additives and for general and administrative overhead costs during the years in which work was performed shall be used to calculate partial payments. Any portion of the fixed fee not previously paid in the partial payments shall not be included in the final payment.

E. Excusable Delays. Except with respect to defaults of subproviders, the Engineer shall not be in default by reason of any failure in performance of this contract in accordance with its terms (including any failure to progress in the performance of the work) if such failure arises out of causes beyond the control and without the default or negligence of the Engineer. Such causes may include, but are not restricted to, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.

F. Surviving Requirements. The termination of this contract and payment of an amount in settlement as prescribed above shall extinguish the rights, duties, and obligations of the State and the Engineer under this contract, except for those provisions that establish responsibilities that extend beyond the contract period.

G. Payment of Additional Costs. If termination of this contract is due to the failure of the Engineer to fulfill its contract obligations, the State may take over the project and prosecute the work to completion, and the Engineer shall be liable to the State for any additional cost to the State.

ARTICLE 16. COMPLIANCE WITH LAWS

The Engineer shall comply with all applicable federal, state and local laws, statutes, codes, ordinances, rules

and regulations, and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this contract, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, nondiscrimination, and licensing laws and regulations. When required, the Engineer shall furnish the State with satisfactory proof of its compliance therewith.

ARTICLE 17. INDEMNIFICATION

A. Errors, Omissions, Negligent Acts. The Engineer shall save harmless the State and its officers and employees from all claims and liability due to activities of itself, its agents, or employees, performed under this contract and which are caused by or result from error, omission, or negligent act of the Engineer or of any person employed by the Engineer.

B. Attorney Fees. The Engineer shall also save harmless the State from any and all expense, including, but not limited to, attorney fees which may be incurred by the State in litigation or otherwise resisting said claim or liabilities which may be imposed on the State as a result of such activities by the Engineer, its agents, or employees.

ARTICLE 18. ENGINEER'S RESPONSIBILITY

A. Accuracy. The Engineer shall be responsible for the accuracy of work and shall promptly make necessary revisions or corrections resulting from its errors, omissions, or negligent acts without compensation.

B. Errors and Omissions. The Engineer's Responsibility for all questions arising from design errors or omissions will be determined by the State. All decisions shall be in accordance with the State's "Consultant Errors & Omissions Correction and Collection Procedures" and Texas Government Code §2252.905. The Engineer will not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the project has been completed.

C. Seal. The responsible Engineer shall sign, seal and date all appropriate engineering submissions to the State in accordance with the Texas Engineering Practice Act and the rules of the Texas Board of Professional Engineers.

D. Resealing of Documents. Once the work has been sealed and accepted by the State, the State, as the owner, will notify the party to this contract, in writing, of the possibility that a State engineer, as a second engineer, may find it necessary to alter, complete, correct, revise or add to the work. If necessary, the second engineer will affix his seal to any work altered, completed, corrected, revised or added. The second engineer will then become responsible for any alterations, additions or deletions to the original design including any effect or impacts of those changes on the original engineer's design.

ARTICLE 19. NONCOLLUSION

A. Warranty. The Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Engineer, to solicit or secure this contract and that it has not paid or agreed to pay any company or engineer any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this contract.

B. Liability. For breach or violation of this warranty, the State shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or compensation, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 20. INSURANCE

The Engineer certifies that it has insurance on file with Contract Services of the Texas Department of Transportation in the amount specified on Texas Department of Transportation Form 1560-CS Certificate of Insurance, as required by the State. No other proof of insurance is acceptable to the State. The Engineer certifies that it will keep current insurance on file with that office for the duration of the contract period. If insurance lapses during the contract period, the Engineer must stop work until a new certificate of insurance is provided.

ARTICLE 21. GRATUITIES

A. Employees Not to Benefit. Texas Transportation Commission policy mandates that employees of the

Texas Department of Transportation shall not accept any benefit, gift or favor from any person doing business with or who reasonably speaking may do business with the State under this contract. The only exceptions allowed are ordinary business lunches and items that have received the advance written approval of the Executive Director of the Texas Department of Transportation.

B. Liability. Any person doing business with or who reasonably speaking may do business with the State under this contract may not make any offer of benefits, gifts or favors to department employees, except as mentioned above. Failure on the part of the Engineer to adhere to this policy may result in the termination of this contract.

ARTICLE 22. DISADVANTAGED BUSINESS ENTERPRISE OR HISTORICALLY UNDERUTILIZED BUSINESS REQUIREMENTS

The Engineer agrees to comply with the requirements set forth in Attachment H, Disadvantaged Business Enterprise or Historically Underutilized Business Subcontracting Plan Requirements with an assigned goal or a zero goal, as determined by the State.

ARTICLE 23. MAINTENANCE, RETENTION AND AUDIT OF RECORDS

A. Retention Period. The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred and services provided (hereinafter called the Records). The Engineer shall make the records available at its office during the contract period and for seven (7) years from the date of final payment under this contract, until completion of all audits, or until pending litigation has been completely and fully resolved, whichever occurs last.

B. Availability. The State or any of its duly authorized representatives, the Federal Highway Administration, the United States Department of Transportation, Office of Inspector General, and the Comptroller General shall have access to the Engineer's Records which are directly pertinent to this contract for the purpose of making audits, examinations, excerpts and transcriptions.

ARTICLE 24. NEPOTISM DISCLOSURE

A. In this section the term "relative" means:

- (1) a person's great grandparent, grandparent, parent, aunt or uncle, sibling, niece or nephew, spouse, child, grandchild, or great grandchild, or
- (2) the grandparent, parent, sibling, child, or grandchild of the person's spouse.

B. A notification required by this section shall be submitted in writing to the person designated to receive official notices under this contract and by first-class mail addressed to Contract Services Office, Texas Department of Transportation, 125 East 11th Street, Austin Texas 78701. The notice shall specify the Engineer's firm name, the name of the person who submitted the notification, the contract number, the district, division, or office of TxDOT that is principally responsible for the contract, the name of the relevant Engineer employee, the expected role of the Engineer employee on the project, the name of the TxDOT employee who is a relative of the Engineer employee, the title of the TxDOT employee, the work location of the TxDOT employee, and the nature of the relationship.

C. By executing this contract, the Engineer is certifying that the Engineer does not have any knowledge that any of its employees or of any employees of a subcontractor who are expected to work under this contract have a relative that is employed by TxDOT unless the Engineer has notified TxDOT of each instance as required by subsection (b).

D. If the Engineer learns at any time that any of its employees or that any of the employees of a subcontractor who are performing work under this contract have a relative who is employed by TxDOT, the Engineer shall notify TxDOT under subsection (b) of each instance within thirty days of obtaining that knowledge.

E. If the Engineer violates this section, TxDOT may terminate the contract immediately for cause, may impose any sanction permitted by law, and may pursue any other remedy permitted by law.

ARTICLE 25. CIVIL RIGHTS COMPLIANCE

(1) Compliance with Regulations: The Engineer shall comply with the regulations of the Department of Transportation, Title 49, Code of Federal Regulations, Parts 21, 25, 27 and 28 as they relate to nondiscrimination; also Executive Order 11246 titled Equal Employment Opportunity as amended by Executive Order 11375.

(2) Nondiscrimination: The Engineer, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

(3) Solicitations for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Engineer of the Engineer's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.

(4) Information and Reports: The Engineer shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the Texas Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of the Engineer is in the exclusive possession of another who fails or refuses to furnish this information, the Engineer shall so certify to the Texas Department of Transportation or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of the Engineer's noncompliance with the nondiscrimination provisions of this contract, the Texas Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- (a) withholding of payments to the Engineer under the contract until the Engineer complies and/or
- (b) cancellation, termination, or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The Engineer shall include the provisions of paragraphs (1) through (5) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Engineer shall take such action with respect to any subcontract or procurement as the Texas Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance provided, however, that in the event an Engineer becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Engineer may request the Texas Department of Transportation to enter into such litigation to protect the interests of the State; and, in addition, the Engineer may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE 26. PATENT RIGHTS

The State and the U. S. Department of Transportation shall have the royalty free, nonexclusive and irrevocable right to use and to authorize others to use any patents developed by the Engineer under this contract.

ARTICLE 27. COMPUTER GRAPHICS FILES

The Engineer agrees to comply with Attachment G, Computer Graphics Files for Document and Information Exchange, if determined by the State to be applicable to this contract.

ARTICLE 28. CHILD SUPPORT CERTIFICATION

Under Section 231.006, Texas Family Code, the Engineer certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate. If the above certification is shown to be false, the Engineer is liable to the state for attorney's fees, the cost necessary to complete the contract, including the cost of advertising and awarding a second contract, and any other damages provided by law or the contract. A child support obligor or business entity ineligible to receive payments because of a payment delinquency of more than thirty (30) days remains ineligible until: all

arrearages have been paid; the obligor is in compliance with a written repayment agreement or court order as to any existing delinquency; or the court of continuing jurisdiction over the child support order has granted the obligor an exemption from Subsection (a) of Section 231.006, Texas Family Code, as part of a court-supervised effort to improve earnings and child support payments.

ARTICLE 29. DISPUTES

A. Disputes Not Related to Contract Services. The Engineer shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the Engineer in support of the services authorized herein.

B. Disputes Concerning Work or Cost. Any dispute concerning the work hereunder or additional costs, or any non-procurement issues shall be settled in accordance with 43 Texas Administrative Code §9.2.

ARTICLE 30. SUCCESSORS AND ASSIGNS

The Engineer and the State do each hereby bind themselves, their successors, executors, administrators and assigns to each other party of this agreement and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this contract. The Engineer shall not assign, subcontract or transfer its interest in this contract without the prior written consent of the State.

ARTICLE 31. SEVERABILITY

In the event any one or more of the provisions contained in this contract shall for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this contract shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

ARTICLE 32. PRIOR CONTRACTS SUPERSEDED

This contract constitutes the sole agreement of the parties hereto for the services authorized herein and supersedes any prior understandings or written or oral contracts between the parties respecting the subject matter defined herein.

ARTICLE 33. CONFLICT OF INTEREST

A. Representation by Engineer.

The Engineer represents that its firm has no conflict of interest that would in any way interfere with its or its employees' performance of services for the department or which in any way conflicts with the interests of the department. The Engineer further certifies that this agreement is not barred because of a conflict of interest pursuant to Texas Government Code, Section 2261.252, between it and the State. Specifically, the Engineer certifies that none of the following individuals, nor any or their family members within the second degree of affinity or consanguinity, owns 1% or more interest, or has a financial interest as defined under Texas Government Code, Section 2261.252(b), in the Engineer: any member of the Texas Transportation Commission, TxDOT's Executive Director, General Counsel, Chief of Procurement and Field Support Operations, Director of Procurement, or Director of Contract Services. The firm shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the department's interests.

B. Certification Status. The Engineer certifies that it is not:

1. a person required to register as a lobbyist under Chapter 305, Government Code;
2. a public relations firm; or
3. a government consultant.

C. Environmental Disclosure. If the Engineer will prepare an environmental impact statement or an environmental assessment under this contract, the Engineer certifies by executing this contract that it has no financial or other interest in the outcome of the project on which the environmental impact statement or environmental assessment is prepared.

D. Restrictions on Testing. If the Engineer will perform commercial laboratory testing under this contract, on any project the Engineer may not perform more than one of the following types of testing:

1. verification testing;

2. quality control testing; or
3. independent assurance testing

ARTICLE 34. OFFICE OF MANAGEMENT AND BUDGET (OMB) AUDIT REQUIREMENTS

The parties shall comply with the requirements of the Single Audit Act of 1984, P.L. 98-502, ensuring that the single audit report includes the coverage stipulated in 2 CFR 200.

ARTICLE 35. DEBARMENT CERTIFICATIONS

The parties are prohibited from making any award at any tier to any party that is debarred or suspended or otherwise excluded from or ineligible for participation in Federal Assistance Programs under Executive Order 12549, "Debarment and Suspension." By executing this agreement, the Engineer certifies that it is not currently debarred, suspended, or otherwise excluded from or ineligible for participation in Federal Assistance Programs under Executive Order 12549. The parties to this contract shall require any party to a subcontract or purchase order awarded under this contract to certify its eligibility to receive Federal funds and, when requested by the State, to furnish a copy of the certification.

ARTICLE 36. E-VERIFY CERTIFICATION

Pursuant to Executive Order RP-80, Engineer certifies and ensures that for all contracts for services, Engineer shall, to the extent permitted by law, utilize the United States Department of Homeland Security's E-Verify system during the term of this agreement to determine the eligibility of:

1. All persons employed by Engineer during the term of this agreement to perform duties within the State of Texas; and
2. All persons, including subcontractors, assigned by Engineer to perform work pursuant to this agreement.

Violation of this provision constitutes a material breach of this agreement.

ARTICLE 37. RESTRICTIONS ON EMPLOYMENT OF FORMER STATE OFFICER OR EMPLOYEE

The Engineer shall not hire a former state officer or employee of a state agency who, during the period of state service or employment, participated on behalf of the state agency in this agreement's procurement or its negotiation until after the second anniversary of the date of the officer's or employee's service or employment with the state agency ceased.

ATTACHMENT B

SERVICES TO BE PROVIDED BY THE STATE

Subject to availability, the services to be provided or performed by the State will include, but not be limited to, the following items:

- A. Electronic copy of full scale plans per project (provided on CD or dropbox).
- B. Electronic copy of contract Proposal and any Addendums per project (provided on CD or dropbox).
- C. Limited Access to Site Manager, Crossroads, Sharepoint.
- D. Site Manager Coordination procedures.
- E. Storm Water Pollution Prevention Plan (SW3P) Information.
- F. SW3P Coordination procedures.
- G. Best Practices coordination procedures (Disadvantaged Business Enterprise, Materials, General Bookkeeping).
- H. Field office containing office furniture, one phone line, one copier, scanner and all utilities, if required.
- I. Concrete testing and curing facilities including cylinder breaker with water tank and heater, if not otherwise noted in the plans.
- J. Construction Time Schedule prepared by the State's Designer or Contractor.
- K. Applicable forms.
- L. Copies of Contractor's Change Orders, if applicable.

ATTACHMENT C

SERVICES TO BE PROVIDED BY THE ENGINEER

The Texas Department of Transportation (State) is entering into a contract with a consulting firm (Engineer) to manage construction of specific operations and to provide Engineer Led Inspection Teams (ELIT) to perform various types of services that include, but are not limited to, the following:

- A. Structure Inspection (bridge and bridge class culvert) – includes foundations, substructure and superstructure.
- B. Concrete Paving Inspection – includes the subgrade up to the pavement.
- C. Hot Mix Asphalt Paving Inspection – includes the subgrade up to the pavement.
- D. Storm Water Pollution Plan Inspection.

Additionally, at the direction of the State, the Engineer shall provide the types of services that include, but are not limited to, the following:

- A. Change Orders (Engineer to provide the estimate of cost of the change order to the State and to assist with negotiations if the State desires.)
- B. Track all shop drawing submittals, reviews and approvals.
- C. Perform a liquidated damages assessment.
- D. Review Traffic Control Plans (TCP).
- E. Verify ramp & lane closures are in accordance with State guidelines.
- F. Review work schedule, plan changes, construction issues, traffic changes, public information topics to include review and approval of the contractor's baseline schedule as well as monitoring the schedule.
- G. Perform time impact analysis should contractor request more time.
- H. Develop plans to address design needs due to field changes (inspection of this work shall be done by a firm other than the one providing the design). This work shall not address errors and omissions.
- I. Identify and make recommendations to the State for the corrections of plan errors and omissions, substitutions, defects and deficiencies in the work of the contractor, subs, vendors, etc.

- J. Provide as-built plans.
- K. Perform Critical Path Methodology (CPM).
- L. Inspection to include daily diaries, weekly Storm Water Pollution Prevention Plan (SW3P) inspections, testing (Lab and Field).
- M. Utilization of the tool Site Manager to perform recordkeeping tasks.
- N. Material testing and inspection in the field at the plant or stockpile source.
- O. Utility coordination and investigation (currently Subsurface Utility Engineering).

GENERAL REQUIREMENTS

The Engineer shall provide all labor, equipment, tools, and incidentals to inspect, sample, test and recommend acceptance to the State on the specific construction operations as defined in the scope of services.

The Engineer shall be responsible for Engineer led inspection teams to ensure the specific operations as defined within the work authorizations are conducted in accordance with the construction plans, specifications, special specifications and special provisions.

The Engineer shall provide certified personnel, outlined in the Quality Assurance plan, that are knowledgeable of all materials testing procedures. All personnel performing acceptance tests must be certified. The Engineer shall provide copies of current certifications.

The Engineer shall assist and advise the State in matters of policy and procedure, and generally accepted industry practices. The Engineer shall identify deficiencies in the work of the contractor, its subcontractors, its vendors and its consultants in the specific construction operations and inform the State of these deficiencies.

The Engineer shall coordinate with the State district's Area Engineer or the Area Engineer's designee to schedule inspection of contractor work activities. The Engineer shall be required to be on-site performing inspection duties at any time the work is being performed including nighttime hours and on weekends as required by the planned construction work. No overtime will be paid without prior approval from the State.

The scope of the project is based on the construction contract construction schedule, added days to the schedule as well as a closeout period. The Engineer shall be responsible to close out the project and ensure that documentation and project related issues have been resolved and submitted to the State by the Engineer.

The Engineer shall attend any meetings required by the State to discuss specifications and action plans with regards to the pertinent bid items, i.e. Pre-Bridge Deck meeting and Pre-Paving meeting, etc.

The Engineer shall perform Construction Engineering and Inspection (CEI) services, to assist the State in managing its construction operations before, during, and after the construction of improvements.

The Engineer shall provide "work around" ideas to keep project moving when there is a utility conflict.

The Engineer shall assist the State throughout all aspects and phases of construction operations and shall, when and as requested by the State, fully support the State in its dealings with the contractor, suppliers, subcontractors, other engineers, legal counsel, accountants, other consultants, government entities, utilities, property owners, and the general public.

The Engineer shall provide qualified technical and professional personnel to adhere to professional standards consistent with those typically met by nationally known and highly regarded construction management firms assigned with the terms of this agreement. Unless otherwise instructed by the State, the Engineer shall minimize the need for the State to apply its own resources to assignments.

The State reserves the right to require replacement of any personnel assigned to the project during this contract if performance is determined to be unsatisfactory by the State, or if any required certifications are allowed to lapse.

Relevant Standards, Manuals and Policies. The Engineer shall be responsible for the Construction Engineering and Inspection of an assigned project to ensure it is constructed in accordance with the construction plans, specifications, special specifications and special provisions. The Engineer shall ensure compliance with all the State's relevant standards, manuals, and policies, including the Construction Contract Administration Manual (CCAM) and the Texas 2004 (or 2014) Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (Spec Book), special specifications, and special provisions. The Engineer shall follow the TxDOT 2010 Guide for Sampling and Testing, the District's Procedures, the guidelines in TxDOT Utilities Manual, the Texas Manual on Uniform Traffic Control Devices (TMUTCD) and all manuals accessible on the State's external Website.

The Engineer shall have knowledge in grading operations (permanent metal deck forms and precast concrete panels). The Engineer shall have knowledge and proficiency with the Bridge Geometry System (BGS). The Engineer shall have knowledge in Bridge Foundation and Design Utilizing Texas Cone Penetrometer Founding methodology, knowledge of OSHA regulations and knowledge in Bridge Structural analysis, specifically the ability to analyze structures which may be subjected to construction loading (cranes, heavy construction equipment).

Level of Authority as Granted by the State. The Engineer shall be delegated certain levels of authority in decision making on the project at the discretion of the State. This will be further described under the appropriate tasks. The Engineer shall assist and advise the State in matters of policy and procedure, and generally accepted industry practices.

Plan Errors and Omissions by Others. The Engineer shall provide services including identification and recommendation of corrections of plan errors and omissions, substitutions, defects, and deficiencies in the work of the contractor, its subcontractors, its vendors and its consultants and coordinate all efforts to meet the project budget and schedule. Any plan errors submitted by the contractor shall be addressed with the State immediately.

Hours of Work. The Engineer shall coordinate with the Area Engineer or the Area Engineer's designee to schedule inspection of contractor work activities. The Engineer shall be required to work during nighttime hours and on weekends as required by the planned construction work.

If, at any time during the project, weather conditions, project delays, or work stoppages temporarily reduce the need for personnel, the State has the authority to reduce the weekly hours below forty (40) per week, per individual. It is the duty of the Engineer to manage the overtime accordingly.

No overtime will be paid without prior approval from the State. The scope is based on the construction contract construction schedule, added days to the schedule as well as a closeout period. The Engineer shall be responsible to close out the project. This includes ensuring that all documentation and project related issues have been resolved and submitted to the State by the Engineer.

Progress Reporting and Invoicing. The Engineer shall invoice according to the Function Code breakdowns as shown in Attachment "C" of the Contract for Engineering Services and Exhibit "D"-Fee Schedule, of each Work Authorization. The Engineer shall submit each invoice electronically directly to the applicable Professional Engineering Procurement Services (PEPS) Support Center using the State's template for the appropriate method of payment template. On a monthly basis the Engineer shall enter their Historically Underutilized Business (HUB) or Disadvantage Business Enterprise (DBE) Reporting and Projected vs. Actual information directly into the Professional Services-Contract Administration Management System (PS-CAMS) Consultant Portal.

The Engineer shall submit a monthly written progress report to the State's Project Manager regardless of whether the Engineer is invoicing for that month. The Engineer's written progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered and actions taken to remedy them; list of meetings attended; and overall status, including a percent complete by task.

Field Office Equipment. The Engineer shall provide computer equipment, PPE and identifiable vehicles for its personnel. The computer equipment shall include laptop computers,

capable of running Site Manager. Additionally, the Engineer shall provide printers and cell phones not otherwise provided by the contractor but needed to perform the work. The PPE shall meet all current standards set by OSHA and the State Requirements to include safety glasses, TY 3 Pants for night work. The Engineer shall obtain and utilize Site Manager Support software or its equivalent.

Limited Access to State's Site Manager. The Engineer shall receive limited access to the State's Site Manager. The Engineer shall sign forms 1828, Information Security Compliance; 1980, Request for External Access to the State's Information Systems; 2110, Information Resources Confidentiality Agreement, and DR-IRI Information Access Request Form. These access rights will be revoked once the contract is complete.

Construction Issues and Conflicts. The Engineer shall identify, track and assist in the resolution of construction issues and conflicts, and provide data to the Area Engineer and the Area Engineer's representatives to support monitoring and recording of construction activities.

TASK DESCRIPTIONS AND FUNCTION CODES

FUNCTION CODE 130 (130) - RIGHT-OF-WAY DATA

A. UTILITY ADJUSTMENT AND COORDINATION

1. Responsible Parties:
 - a. **Utility Coordinator:** Herein referred to as the provider performing services in a non-engineering capacity.
2. The Utility Coordinator shall coordinate all activities with the State, or the State's designee, to facilitate the orderly progress and timely completion of the State construction phase. The Utility Coordinator shall be responsible for the following:
 - a. **Work Plan.** Coordinate a work plan including a list of the proposed meetings and coordination activities, and related tasks to be performed, a schedule and an estimate. The work plan must satisfy the requirements of the project and must be approved by the State prior to commencing work.
 - b. **Initial Project Meeting.** Attend an initial meeting and an on-site inspection (when appropriate) to ensure familiarity with existing conditions, project requirements and prepare a written report of the meeting.
 - c. **External Communications.** Coordinate all activities with the State and its consultants or other contractors or representatives, as authorized by the State. Also, the Utility Coordinator shall provide the State copies of diaries, correspondence and other documentation of work-related

communications between the Utility Coordinator, utility owners and other outside entities when requested by the State.

- d. **Progress Meetings.** Implement a schedule of periodic meetings in the field with each utility company and owner or owner's representatives for coordination purposes. Such meetings shall commence as early as possible and shall continue until completion of the project. The Utility Coordinator shall notify the State at least two (2) business days in advance of each meeting to allow the State the opportunity to participate in the meeting. The Utility Coordinator shall provide and produce meeting minutes of all meetings with said utility companies, owners or owners' representatives within seven (7) business days. The frequency of such meetings shall be appropriate to the matters under discussion with each utility owner.

FUNCTION CODE 145(145, 164) – MANAGING CONTRACTED/DONATED PE

A. PROJECT MANAGEMENT AND ADMINISTRATION

1. The Engineer, in association with the State's Project Manager shall be responsible for directing and coordinating all activities associated with the project to comply with State policies and procedures, and to deliver that work on time.
2. Project Management and Coordination. The Engineer shall coordinate all subconsultant activity to include quality of and consistency of work and administration of the invoices and monthly progress reports. The Engineer shall coordinate with necessary local entities.
3. The Engineer shall:
 - a. Prepare monthly written progress reports for each project.
 - b. Develop and maintain a detailed project schedule to track project conformance to Exhibit C, Work Schedule, for each work authorization. The schedule submittals shall be hard copy and electronic format.
 - c. Meet on a scheduled basis with the State to review project progress.
 - d. Prepare, distribute, and file both written and electronic correspondence.
 - e. Prepare and distribute meeting minutes.

- f. Document phone calls and conference calls as required during the project to coordinate the work for various team members.

FUNCTION CODE 160(163) - ROADWAY DESIGN

A. UTILITY ENGINEERING INVESTIGATION (currently Subsurface Utility Engineering)

- 1. Responsible Parties:
 - a. **Utility Coordinator:** Herein referred to as the provider performing services in a non-engineering capacity.
 - b. **Utility Engineer:** Herein referred to as the registered Professional Engineer, who is an employee of the Engineer, performing services in a professional engineering capacity.
- 2. Utility Engineering Investigation shall include utility investigations subsurface and above ground prepared in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards [ASCE C-1 38-02 (<http://www.fhwa.dot.gov/programadmin/asce.cfm>)] and Utility Quality Levels as follows.
 - a. Utility Quality Levels are defined in cumulative order (least to greatest) as follows:
 - i. Quality Level D - Existing Records: Utilities are plotted from review of available existing records.
 - ii. Quality Level C - Surface Visible Feature Survey: Quality level "D" information from existing records is correlated with surveyed surface-visible features. Includes Quality Level D information. If there are variances in the designated work area of Level D, a new schematic or plan layout will be necessary to identify the limits of the proposed project and the limits of the work area required for the work authorization; including highway stations, limits within existing or proposed right of way, additional areas outside the proposed right of way, and distances or areas to be included along existing intersecting roadways.
 - iii. Quality Level B - Designate: Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Utility indications are referenced to established survey control. Incorporates quality levels C and D information to produce Quality Level B. If there are variances in the designated work area of Level D, a new schematic or plan layout will be necessary to identify the limits of the proposed project and the limits of the work area required for the work

- authorization; including highway stations, limits within existing or proposed right of way, additional areas outside the proposed right of way, and distances or areas to be included along existing intersecting roadways.
- iv. Quality Level A - Locate (Test Hole): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes and measuring and recording (to appropriate survey control) utility/environment data. Incorporates quality levels B, C and D information to produce Quality Level A.
- b. Designate (Quality Level B), Designate means to indicate the horizontal location of underground utilities by the application and interpretation of appropriate non-destructive surface geophysical techniques and reference to established survey control. Designate (Quality Level B) Services are inclusive of Quality levels C and D.

The Engineer shall:

- i. As requested by the State compile "As Built" information from plans, plats and other location data as provided by the utility owners.
- ii. Coordinate with utility owner when utility owner's policy is to designate their own facilities at no cost for preliminary survey purposes. The Engineer shall examine utility owner's work to ensure accuracy and completeness.
- iii. Designate, record, and mark the horizontal location of the existing utility facilities and their service laterals to existing buildings using non-destructive surface geophysical techniques. No storm sewer facilities are to be designated unless authorized by the State. A non-water base paint, utilizing the American Public Works Association (APWA) color code scheme, must be used on all surface markings of underground utilities.
- iv. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations, shall be prepared and delivered to the State. It is understood by both the Engineer and the State that the line sizes of designated utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. A note must be placed on the designate deliverable only that states "lines sizes are from best available records". All above ground appurtenance locations must be included in the deliverable to the State. This information shall be provided in the latest version of Micro Station or Geopak used by the State. The electronic file will be delivered on CD or DVD, as required by the State. A hard copy is required and must be

- signed, sealed, and dated by the Engineer. When requested by the State, the designated utility information must be over laid on the State's design plans.
- v. Determine and inform the State of the approximate utility depths at critical locations as determined by the State. This depth indication is understood by both the Engineer and the State to be approximate only and is not intended to be used preparing the right of way and construction plans.
 - vi. Provide a monthly summary of work completed and in process with adequate detail to verify compliance with agreed work schedule.
 - vii. Close-out permits as required.
 - viii. Clearly identify all utilities that were discovered from quality levels C and D investigation, but cannot be depicted in quality level B standards. These utilities must have a unique line style and symbology in the designate (Quality Level B) deliverable.
 - ix. Comply with all applicable State policy and procedural manuals.
- c. Subsurface Utility Locate (Test Hole) Service (Quality Level A), Locate means to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that ensures the integrity of the utility facility. Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B, C, and D.

The Engineer shall:

- i. Review requested test hole locations and advise the State in the development of an appropriate locate (test hole) work plan relative to the existing utility infrastructure and proposed highway design elements.
- ii. Coordinate with utility owner inspectors as may be required by law or utility owner policy.
- iii. Neatly cut and remove existing pavement material, such that the cut not to exceed 0.10 square meters (1.076 square feet) unless unusual circumstances exist.
- iv. Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:
 - Elevation of top and bottom of utility tied to the datum of the furnished plan.
 - Identify a minimum of two benchmarks utilized. Elevations shall be within an accuracy of 15mm (.591 inches) of utilized benchmarks.
 - Elevation of existing grade over utility at test hole location.
 - Horizontal location referenced to project coordinate datum.
 - Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.

- Utility facility material(s).
 - Utility facility condition.
 - Pavement thickness and type.
 - Coating/Wrapping information and condition.
 - Unusual circumstances or field conditions.
- v. Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation can only be utilized with written approval from the appropriate State District Office.
- vi. Be responsible for any damage to the utility during the locating process. In the event of damage, the Engineer shall stop work, notify the appropriate utility facility owner, the State and appropriate regulatory agencies. The regulatory agencies include, but are not limited to the Railroad Commission of Texas and the Texas Commission on Environmental Quality (TCEQ). The Engineer shall not resume work until the utility facility owner has determined the corrective action to be taken. The Engineer shall be liable for all costs involved in the repair or replacement of the utility facility.
- vii. Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material. The Engineer shall be responsible for the integrity of the backfill and surface restoration for a period of three years. Install a marker ribbon throughout the backfill.
- viii. Furnish and install a permanent above ground marker (as specified by the State, directly above center line of the utility facility).
- ix. Provide complete restoration of work site and landscape to equal or better condition than before excavation. If a work site and landscape is not appropriately restored, the Engineer shall return to correct the condition at no extra charge to the State.
- x. Plot utility location position information to scale and provide a comprehensive utility plan sign and sealed by the responsible Engineer. This information shall be provided in the latest version of Micro Station or Geopak format used by the State. The electronic file will be delivered on CD or DVD. When requested by the State, the Locate information must be over laid on the State's design plans.
- xi. Return plans, profiles, and test hole data sheets to the State. If requested, conduct a review of the findings with the State.
- xii. Close-out permits as required.

FUNCTION CODE 309(309) – DESIGN VERIFICATION / CHANGES / ALTERATIONS

A. DESIGN VERIFICATION, CHANGES AND ALTERATIONS

1. Change Orders

- a. The Engineer shall review the CCAM on change orders to understand the State's policy.
- b. The Engineer shall provide an estimated cost of change orders to the State and aid the State in price negotiations of new pay items added by change order. Review the information submitted by the contractor to verify the prices are within the current State wide or district bid averages. If the price exceeds the bid averages, review the breakdown to ensure the contractor is using the allowed mark-ups as specified in the Spec Book. Prices should be fair and reasonable based on the time, material, equipment and labor necessary to perform the work.
- c. The Engineer shall provide appropriate documentation including justification for the change order, revised drawings and plan sheets with appropriate design backup documentation, cost breakdowns, time impacts, and change order descriptions. Record this information in Site Manager for execution by the State.
- d. The Engineer shall work with the State on submitting change orders. All change orders shall be signed by the State.
- e. The Engineer shall coordinate with the State by sending all change orders to the assigned District for funding before a change order is sent to the contractor.
- f. The Engineer shall provide all documentation supporting the need for any change orders.
- g. The Engineer shall provide all plan sheets associated with change orders. The plan sheets shall be signed, sealed and dated by a Texas Registered Professional Engineer. The Engineer shall not perform inspections on their design. The State will perform or the State will use another provider to perform inspections on the Engineer's design.
- h. The Engineer shall provide Complete District Change Order Checklist, signed by the Engineer.
- i. The Engineer shall follow any current and new processes that are mandated by the State.
- j. If third party funds are associated with the change order, the Engineer shall assist Area Office (AO) as needed.

DELIVERABLES:

The Engineer shall provide the following:

- Sealed, revised plan sheet(s) for any changes made, and corresponding recommended change orders
- All change orders funded by the State and by the contractor
- All documentation supporting the need for any change orders
- All plan sheets associated with change orders shall be sealed by an Engineer
- Complete District Change Order Checklist, signed by the Engineer
- Site Manager Change Order sheets

2. Submittal, Tracking and Approval of the Shop Drawings

- a. The Engineer shall log, monitor, and coordinate the contractor's submittals of fabrication plans, erection plans, shop drawings, change orders, Material on Hand, time extensions, product and material submittals, and Requests for Information (RFI).
- b. The Engineer shall forward submittals and shop drawings to the appropriate party and verify return of documents.
- c. The Engineer shall address RFI's as directed by the State.
- d. The Engineer shall make recommendations to the State for resolution of any RFI's and draft any correspondence necessary for the resolution of the RFI.
- e. The Engineer shall coordinate RFI resolutions with appropriate party as directed by the State.
- f. The Engineer shall submit all shop drawing electronically as outlined in the "Guide to Electronic Shop Drawing Submittal".
- g. The Engineer shall track all shop drawing submittals, reviews and approvals.

FUNCTION CODE 300(310) – GENERAL FUNCTION

A. PROJECT SUPERVISION

1. For Traffic Control Inspection, the Engineer shall:
 - a. Review plan sheets for Traffic Control Plan (TCP) changes or modifications.
 - b. Verify that all lane and ramp closures follow State guidelines and lane restrictions as found in the project plans.
 - c. Ensure that all lane closure information is sent to the assigned District Public Information Office (PIO), Corridor Mobility Coordinator and others as directed one week prior to the closure.
 - d. Ensure that if scheduled lane closures are cancelled, a District's PIO, the Corridor Mobility Coordinator and others, as directed, are notified immediately with updated information.
 - e. Coordinate lane closures with the AO staff.
 - f. Oversee project barricades and signs on a daily basis and coordinate corrections with the contractor as required.
 - g. Perform inspections of barricades and report to contractor on Form 599 at a minimum of three inspections per month (two daytime inspections and one nighttime inspection).
 - h. Coordinate with the AO so that a barricade inspection report is performed by the District Construction office and coordinate corrections with contractor.

- i. Complete Form 599, documenting deficiencies or actions needed and submit to contractor for corrective actions. The Engineer shall document when the deficiencies or actions are addressed and escalate as required. Once completed, send to AO for review. No copies shall be maintained by the Engineer, nor sent to any individual via email.
 - j. Ensure the contractor makes repairs to critical items immediately and other deficiencies or actions shall be addressed as soon as possible per item 502 Barricades, Signs, and Traffic Handling and enforce non-payment of item, if needed.
 - k. Ensure all items meet requirements of TMUTCD, TCP, standards and specifications and State compliant list which include at a minimum:
 - i. proper devices are used
 - ii. devices are clean and free of damage
 - iii. devices are properly aligned and spaced
 - iv. devices have proper reflectivity
 - v. pavement markings are performing properly
 - vi. proper flagging procedures are followed
 - vii. signs are properly mounted and not leaning
 - viii. the overall set up is in compliance
2. For Project Coordination, the Engineer, as directed by the State, shall provide the following in writing (for example, meeting minutes and e-mails):
- a. Conduct weekly coordination meetings on the project with the State Representative, contractor, Subcontractors and other interested parties.
 - b. Participate in safety meetings with the State on the job site or Area Office or as required by the State.
 - c. Conduct pre-activity meetings for major operations or traffic control changes.
 - d. Review the work schedule, plan changes, construction issues, submittal progress, traffic changes, public information topics, and all other relevant matters to include review and approve the contractor's baseline schedule to verify the contractor has followed the approved Traffic Control Plan and all work has been incorporated into the schedule.
 - e. Monitor the progress of the contractor's approved schedule and the progress of the work with the goal of meeting the contract completion date, review and monitor the contractor's work schedule monthly and recommendation to the State regarding any changes or needed changes to the schedule, and notify the State if the schedule does not adequately reflect appropriate completion dates, reasonable resources, or errors in logic. If additional time is requested by the contractor, the Engineer shall review the contractor's request and verify the time impact analysis.
 - f. Analyze the contractor's monthly CPM schedule and provide recommendations for modifications or acceptance and verify the CPM schedules follow all guidelines described in the specifications. Any revisions to the schedule will require approval by the State.

3. For Project Correspondence, the Engineer shall:
 - a. Upon receipt of written correspondence from the contractor, draft a response within five (5) working days for the State to review, comment, approve and sign. The Engineer shall track all correspondence, approved or outstanding. All informal correspondence should be sent to the State via e-mail. All formal correspondence should be sent on the Engineer's letterhead.
 - b. Manage project issues and work directly with the contractor as directed in writing by the State.
 - c. Escalate any major project issues to the State.
 - d. Copy the State's Project Manager (PM) on all internal and external correspondence.

DELIVERABLES

The Engineer shall provide the following:

- Monthly Barricade Inspection Reports
- Baseline Schedule review
- Monthly Update Reviews
- Time Impact Analysis Reviews

FUNCTION CODE 300(320) – GENERAL FUNCTION

A. INSPECTION OF WORK IN PROGRESS AND PROJECT RECORDS

1. The Engineer shall inspect work incorporated into the project as assigned by the State to:
 - a. Verify that the project is built according to the plans and specifications, and all contract documents.
 - b. Verify the accuracy of the work and determine pay quantities by making measurements as assigned by the State.
 - c. Verify all the specifications and special provision requirements are met for inspected items of work regarding materials, construction, measurement and payment.
 - d. Verify daily quantities for each item of work assigned, performed and tabulate into a monthly pay estimate to the contractor. The estimate shall be furnished to the State for execution of payment via Site Manager.
 - e. Enter measurement and payment information daily into Site Manager for the items inspected by the Engineer personnel.
 - f. All fields shall be completed in Site Manager, unless otherwise directed by the District's construction personnel.

- g. Verify all material sourcing information is entered into Site Manager and address all material or testing deficiencies on a monthly basis.
- 2. The Engineer shall maintain all records on the project per State and District procedures including Daily Work Reports (DWR), diaries, shop drawings and submittals, RFI drawings and sketches of measured items, sets of plans, record set plans, material on hand forms and general correspondence.
- 3. The Engineer shall verify proper drilled shaft or pile installations. Inspector should have knowledge in geological materials to ensure proper founding is achieved, proper underwater and slurry displacement concrete placement procedures and proper use of steel casing for dewatering and stability applications are implemented.
- 4. The Engineer shall verify appropriate mill tests, materials approval and Buy America certifications are available as required.
- 5. The Engineer shall verify Historically Underutilized Business (HUB) documentation; Commercially Useful Function reviews; Prompt Pay and Wage rate surveys are complete and correct. Verify corrections are made by the contractor.
- 6. The Engineer shall verify and document all contractors' Form CST-C_1 (Additional Classification and Wage Rate Request) and Form 2182 (Commercially Useful Function Site Review) as directed by the State in writing (meeting minutes, emails and other).
- 7. For Monthly Progress Estimates, the Engineer shall:
 - a. Prepare all monthly progress estimates in Site Manager for approval by the State and submit them on the date that is determined by the State for each estimate cycle.
 - b. Verify all quantities and coordinate with the contractor when discrepancies arise.
 - c. Submit a copy of the Site Manager installed work report or equivalent at the end of each week to the contractor for concurrence.
 - d. Make recommendation for payment for work inspected during the month.
- 8. The Engineer shall maintain a log of all contractor submittals including RFI's, shop drawings, concrete, police officer hours, material testing requirements, material on hand, reviews, approvals, and any other logs deemed necessary by the State, and upon request provide the log to the State.
- 9. The Engineer shall administer the material on hand, process and shall:
 - a. Verify eligibility for payment of any material requested for payment of material on hand.

- b. Monitor and verify material on hand before paying the contract per the requirements of the specification.
 - c. Perform on-site and off-site checks to verify the material is part of the contractor's inventory as directed.
 - d. Collect invoices, certifications and testing information from the contractor to pay for material on hand within sixty (60) days.
 - e. Remove the material from the estimate, if no invoices are provided with sixty (60) days.
 - f. Spot check on-site and off-site the material on hand and document for accuracy.
 - g. Maintain a log per State District procedures.
10. For the Environmental Process, the Engineer shall:
- a. Follow all current Storm Water Management guidelines and verify SW3P and Environmental Permits Issues and Commitments (EPIC) sheet requirements are followed.
 - b. Verify appropriate permits are in place for all contractor Project Specific Locations (PSL's).
 - c. Maintain the SW3P working drawings, which shall be located in the field office at all times.
 - d. Maintain documentation in accordance with the Texas Pollutant Discharge Elimination System's (TPDES), and Construction General Permit (CGP).
 - e. Perform SW3P inspections every seven (7) calendar days and record the results on the State's 2118 form and report and deficiencies to the contractor and verify corrections were made per the requirements of the CGP.
 - f. Verify that the contractor follows the guidelines of the CGP.
 - g. Notify the State immediately in the event the contractor has failed to make the corrections as per the requirements of the CGP.
 - h. Provide all environmental correspondence to the State.
 - i. If there are any change orders or added construction that will impact the Environmental document, the Engineer shall coordinate with the State to provide the necessary documentation.
 - j. Maintain a separate SW3P working copy of plan set and verify it is updated accordingly to remain in compliance.
 - k. Provide personnel certified in EMS Training Matrix, ENV103 and ENV300, or equivalent.
11. For Documenting and Reporting, the Engineer shall:
- a. Prepare a DWR for each day of work from the begin work date until final acceptance. All inspectors shall prepare their own DWR each day they are on the project. Each DWR must have the weather recorded for that day, including temperature high and low, weather conditions, all visitors to the project, traffic conditions, lane closure hours, police officer names and hours worked, portable message sign hours, instruction given to the

contractor, the contractor work hours, the contractor's equipment and utilization, and equal employment opportunity (EEO) issues, safety concerns, SW3P information, and accidents. When recording information pertaining to accidents, record only factual information as observed; not personal opinion. Also, include the subcontractors on the project, the number of hours on the project, and the work they are performing, and items for payment.

- b. Maintain all relevant subcontractor forms, contract assurance logs, agreements, and statements of compliance.
- c. Submit subcontractor approval requests to the State's Area Office (including hauling trucks). The State will input the approval date into Site Manager. State approval shall be required prior to payment to the contractor for the work performed by the subcontractor.
- d. Fill out the DWR work items tab as a means to pay for items of work inspected. Input the station number, supporting calculations, quantity being paid, any comments or remarks necessary, and any other information to properly distinguish the item being paid. Reference plan sheets as reference markers.
- e. Maintain hard copies of measurements and attachments that support the calculations and quantities listed in the DWR's.
- f. Maintain a daily diary on the project in Site Manager. This diary will allow the Engineer to recommend payment for the items listed in the DWR and to charge time on the project and maintain milestone charges, if applicable. No paper diary will be maintained.
- g. Identify items that will overrun and under run during the course of the project. These should be addressed via change order per the State policy.
- h. Follow State's Concrete Procedures for field concrete specimens.
- i. Maintain a set of project records and setup according to State procedures.
- j. Coordinate with the State for the State District Audits to be performed. Track resolution of audit deficiencies.

12. The Engineer shall provide all items that are listed under the Field Office Equipment Section of this scope.

DELIVERABLES for items 1-12

The Engineer shall provide the following:

- Monthly Project Estimates (with hard copies of measurements and attachments that support the calculations and quantities listed in the estimate).
- Monthly 3rd party estimates.
- Monthly Material on Hand forms (1914 and 1915) HMA CX2 forms.
- Paid invoices for material on hand.
- Documentation for extra work.
- SW3P Working Plan Set.

- Weekly SW3P inspections (2118 Form).
- One DWR per day by each person inspection items of work on the project (record in Site Manager) and supporting hard copy documentation.
- All drilled shaft or pile logs (record in Site Manager).
- One Diary per day by the project Engineer or Project Manager (record in Site Manager).

13. Construction Scheduling Support Services (Primavera Scheduling Software)

a. Contract Time Determination

- i. The Engineer shall develop a contract time determination schedule for the State's use in establishing the working days for the PS&E.
- ii. The Engineer shall use production rates approved by the State.
- iii. The Engineer shall use Primavera scheduling software unless directed otherwise by the State.
- iv. The Engineer shall use appropriate calendars and coding for modeling the type of work and incorporate weather and other constraints in the calendars.
- v. The contract time calendar should conform to the definition of a working day as defined in the PS&E.
- vi. The Engineer shall develop the time determination schedule to follow the traffic control plans taking into consideration the breakdown of quantities of work to be done in each phase.
- vii. The Engineer shall review contract time determination schedules and provide a written summary of findings.

b. Preliminary and Baseline Schedules

- i. The Engineer shall review, analyze, and provide recommendations and submit a review report on Contractor's preliminary schedule.
- ii. The Engineer shall review, analyze, and provide recommendations and submit a review report on the contractor's baseline schedule.
- iii. The Engineer shall attend Preconstruction Meeting and any other required meetings.

c. Schedule Updates (Progress and Revised)

The Engineer shall:

- i. Review and analyze Contractor's monthly progress schedule updates, and submit updated Schedule Review Report. Include a detailed review of critical and near critical activities. Compare current update to previous updates using Claim Digger.
- ii. Review and analyze Contractor's monthly schedule updates for revisions and submit Revised Schedule Review Report. Compare revision to previous version of schedule using Claim Digger.
- iii. Coordinate with the State's field personnel or District Construction Office, to compare actual construction status with the Contractor's monthly update. Verify accuracy of the schedule, actual start dates, actual finish dates, and percent complete or remaining duration.

- Review the monthly Daily Work Reports (DWR).
- iv. Schedule monthly site visits with the State's District Construction Office or Field personnel.
- v. Upon the State's request, coordinate with the State's personnel on adjacent projects to determine possible conflicts or impacts.
- vi. From interim schedule updates provided by the Contractor, identify changes in critical path or changes in controlling delays.
- vii. Identify possible future scheduling conflicts and report.
- viii. Develop a Project Schedule Status Report (PSSR) to monitor project completion dates, identify actual and potential critical path slippage, and recommend strategies for mitigating critical path delays.
- ix. Monitor the effects of weather (calendar-day projects) and other non-excusable impacts on the schedule and provide means to separate these from excusable impacts.
- x. Verify that schedule updates are separate: Progress Schedule vs. Schedule Revisions (Revisions require the State's approval) in accordance with the specifications.
- xi. Attend meetings on an as needed basis.
- d. Time Impact Analysis (TIA)

The Engineer shall:

- i. Review and analyze TIAs from the contractor in accordance with the Special Provision or the 2004 Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges Spec Book.
- ii. Coordinate with State's Area Office and District Construction Office personnel to determine the validity of the TIAs.
- iii. Assist in analyzing Delay Claims.
- iv. Provide report for the justification of granting or rejecting time requested to the State.
- v. Review overhead documentation for compensable delays.
- vi. Recommend scheduling alternatives to mitigate impact resulting from conflict to the State.
- vii. Perform independent TIA as an alternative to Contractor submittal.
- viii. Monitor PSSR to verify the TIA process.

14. General

The Engineer shall:

- a. Investigate, analyze and recommend resolution to mitigate schedule impacts between adjacent construction contracts as directed by the State.
- b. Inform the State's Area Engineer and District Construction Office of upcoming lane closures, and high demand inspection needs.
- c. Inform the State of milestone status, major traffic changes, and project

- completion for posting to the project web page by the State.
- d. Review contract time determination schedules and provide written summary of findings.

DELIVERABLES

The Engineer shall provide the following:

- **Contract Time Determinations to include the following:**
 - Contract time determination schedules with the listing of activities, production rates, quantities, and durations to support the resulting contract time.
- **Baseline Schedule Review Reports to include the following:**
 - Transmittal letters to State's Area Engineer and District Construction Office providing summary of findings and recommendations to accept or reject the preliminary or detailed (baseline) schedule.
 - Draft letters for State's Area Engineer's signature notifying Contractor of schedule acceptance or rejection.
 - Completed Checklists for Schedule Review.
 - Detailed listings of schedule deficiencies.
 - Any other documentation to support findings.
- **Schedule Updates (Progress and Revised) Review Reports to include the following:**
 - **Progress Schedule Review Report**
 - Transmittal letter to State's Area Engineer and District Construction Office providing the following:
 - summary of findings,
 - lists identifying potential future critical path impacts, and
 - recommendations to accept or reject the update.
 - Draft letter for State's Area Engineer's signature notifying Contractor of schedule update acceptance or rejection.
 - Completed Checklist for Progress Schedule Review.
 - Detailed listing of schedule deficiencies.
 - Claim Digger output with written explanation of the results summary form.
 - Updated Project Schedule Status Report (PSSR).
 - Plots of look-ahead schedules showing work planned for next 2 months.
 - Any other documentation to support findings.

- Revised Schedule Review Report
 - Transmittal letters to State's Area Engineer and District Construction Office providing summary of findings and detailed discussions of revisions including:
 - changes to critical path due to the revision,
 - changes to the project calendars,
 - changes to resources or sequencing,
 - discussions of the positive and negative effects of the revisions, and
 - recommendations to accept or reject the revision.
 - Draft letters for State's Area Engineer's signature notifying Contractor of schedule revision acceptance or rejection.
 - Updated Project Schedule Status Reports.
 - Claim Digger output with written explanation of the results summary form.
 - Any other documentation to support findings.
- **Time Impact Analysis Review Report to include the following:**
 - Transmittal letter to State's Area Engineer and District Construction Office providing summary of findings and recommendation to accept or reject the time impact analysis.
 - Draft
 - letter for State's Area Engineer's signature notifying Contractor of TIA acceptance or rejection.
 - Copies of recommended scheduling alternatives to mitigate impacts resulting from conflicts.
 - Independent TIAs as an alternative to Contractor's submittals.
- **Progress Report to include the following:**
 - A progress report that compares planned construction performance, expressed as percentage complete, with actual performance.
 - Summary statements regarding accomplishments during the reporting period and listings of major concerns and issues pertaining to construction progress.
 - A summary progress report will be developed and maintained that shows the overall status of the entire construction project for presentation.
 - A ninety (90) day look ahead of critical and near critical activities.

FUNCTION CODE 300(330) – GENERAL FUNCTION

A. JOB CONTROL

1. The Engineer shall perform all sampling and testing of components and materials in accordance with the standard specifications, and all other standard and special specifications and special provisions applicable in this agreement. Meet the minimum sampling frequencies set out in the TxDOT 2010 Guide Schedule for Sampling and Testing for materials. The testing shall include the following materials and all the components of the materials listed: Asphalt, Concrete, Soils

and Aggregates. The estimated number of samples and tests are based on quantities in the executed construction contract.

- a. The Engineer shall ensure the testing is completed and input into Site Manager. NOTE: The contractor is responsible for testing Item 360 Concrete Paving.
- b. The Engineer shall provide certified personnel, outlined in their Quality Assurance and Quality Control (QA/QC) plan that are knowledgeable of all materials testing procedures. All personnel performing acceptance tests must provide certifications and must maintain the certifications throughout the project. The State reserves the right to require replacement of any technician during this contract if performance is determined to be unsatisfactory or the technician fails to maintain appropriate certifications.
- c. The Engineer shall provide technicians certified in accordance with TxDOT Quality Assurance Programs for Construction (QAP) or other State approved programs, such as the Texas Asphalt Pavement Association (TxAPA) for Hot Mix Asphalt, and the Soils and Base Certification Program, as listed below.
- d. The Engineer shall provide certified technicians to perform the following tests:
 - i. Hot Mix Asphalt Testing
 - Level I-A
 - Level I-B
 - Level II
 - All other tests in the Manual of Testing Procedures 200-F Series or ASTM Procedures not covered in Level I-A, Level I-B, or Level II
 - ii. Concrete Testing
 - QAP Program for Concrete Testing
 - Other tests outlined in the Manual of Testing Procedures 400-A Series or ASTM Procedures that are not included in the QAP Program
- e. The Engineer shall perform testing on the project. These tests include all tests listed in State's Guide Schedule to Sampling and Testing dated 2010. Follow the State's Guide Schedule of Sampling and Testing to establish testing frequencies. Testing frequencies may be increased as directed by the State.
- f. The Engineer shall notify the State, to determine if any tests may be waived.
- g. The Engineer shall attend preconstruction QA and QC testing meetings prior to beginning work.
- h. The Engineer shall:
 - i. Review and recommend approval or rejection for all sampling and testing documentation submitted by the contractor for compliance with applicable State and federal regulations, standards, and contract requirements.

- ii. Verify all materials used meet specifications, or identify materials that do not meet specifications and recommend action which should be taken.
- iii. Certify that all materials used during construction meet the specifications as outlined in the Site Manager Support System.
- iv. Work closely with the State to resolve all material discrepancies before the next monthly estimate is processed by utilizing the XiteReport in Site Manager.
- v. Enter all test data in Site Manager.
- vi. Enter all mix designs, concrete and asphalt, into Site Manager.
- i. The Engineer shall report failing tests to the State within twenty-four (24) hours.

DELIVERABLES:

The Engineer shall provide the following:

- Monthly Deficiency Reports to track material issues (one (1) per month)
- Certification Verifications
- Testing documentation as applicable
- Letters of Certification
- Test Exception Letter

FUNCTION CODE 300(352) – GENERAL FUNCTION

A. FINAL CONSTRUCTION DOCUMENTS

1. For Final Construction Documents the Engineer shall:
 - a. Provide a comprehensive punch list to the contractor when work nears completion.
 - b. Verify that all punch list work is complete before recommending acceptance to the State.
 - c. Provide the contractor punch list to the State.
 - d. Provide final complete construction records including as-built plans, final quantities, complete test reports, final HUB reports, and project documentation (including all general correspondence that occurred during the project) within thirty (30) days of final acceptance of the project by the State. Final project documentation shall include the following: folder labeled by item number for items requiring additional back-up; copies of all of the change orders with back-up; Material Invoices back-up; Manifest tickets for all material paid by weight (Asphalt, Concrete, Lime, etc.); Material on Hand forms 1914 and 1915; Texas Department of Licensing and Regulation (TDLR) Inspections; and any other applicable records necessary to complete the review. The Engineer shall submit the

correspondence folder with the final records including the as-builts when submitting the final documents.

- e. Provide a letter to the Area Office recommending certification that the project was constructed in substantial compliance with the plans and specifications and that materials incorporated in the construction work and operations were in conformity with the approved plans and specifications.
- f. Contact TDLR for inspection of work performed.

DELIVERABLES

The Engineer shall provide the following:

- Final Records labeled by item number
- Manifest Tickets (Asphalt, Concrete, Hot Mix, Lime)
- Copies of all change orders created on the project
- Material on Hand forms for the duration of the project
- Barricade Inspection Forms
- TDLR Inspection Report
- Correspondence File
- As-built Plans
- Test Certification Report
- Failing Samples Report

FUNCTION CODE 300(390) – GENERAL FUNCTION

A. CONSTRUCTION ENGINEERING NOT OTHERWISE CLASSIFIED

- 1. The Engineer shall perform:
 - a. Post Letting Activities Prior to Construction to include:
 - i. Schedule and assist in conducting a preconstruction conference for the project, document the conference in accordance with State procedures as outlined in CCAM and District Procedures.
 - Schedule Pre-Construction Conference.
 - Assist in conducting pre-construction conference.
 - Document the conference in accordance with State procedures as outlined in CCAM and District procedures.
 - ii. The Engineer shall monitor known existing utility facilities on the project:
 - Coordinate any and all relocations or conflicts with the appropriate utility companies and the contractor.
 - Document any project delay or potential delay caused by utility conflicts.
 - b. For activities during Construction to include the Engineer's preparation or performance of the following:
 - i. Disputes and Claims

- Upon notice from the contractor of pending claims for extra work or changes in scope of the work or delay to the work, maintain records indicating the cost of such work and delay.
 - Analyze the schedule and make recommendations to the State's Area Engineer regarding such claims, time extensions, contract changes extra work or delay costs.
 - Assist in dispute negotiations and claim resolution through all levels of escalation including the Engineer's support.
- ii. Utilities & ROW
 - Coordinate with the State and their representative on utility and ROW issues as needed and attend meetings as required.
- iii. Internal and External Agency Audits
 - Assist the State in any internal and external agency audits that may be performed during the life of the construction project.
 - Provide documentation as requested.
- c. For the Quality Assurance and Quality Control Plan (QA and QC), the Engineer shall:
 - i. Develop and maintain a QA and QC plan for inspections, record keeping, and testing and submit to the State for review.
 - ii. Submit documentation to the State for verification of quality control checks.
 - iii. Include steps to ensure the State is receiving trained personnel on the project.
 - iv. Submit this plan to the State. If changes to the plan are made by the Engineer or as directed by the State, the updated version shall be provided to the State. Also, the Engineer shall address all State comments to the plan.
 - v. Provide a quarterly comparison of estimated manpower versus actual manpower versus budgeted manpower.
 - vi. Provide monthly schedule of predicted manpower showing the estimated, actual, and budgeted manpower.
- d. For Public Information and Coordination the Engineer shall:
 - i. Assist the State in the public relations activities including the preparation of public information, attending public meetings for the purposes of providing information to the public, notification of department personnel of lane closures, including press releases. All news conferences and media interviews will be handled by the State.
 - ii. Initiate and conduct meetings which include, but are not limited to the following parties: contractor representatives, neighboring construction projects, public works agencies, utilities, federal officials, the State, and their interested parties. The goal of these meetings will be to maintain adequate cooperation and communication among all partners to this project.
 - iii. Coordinate with the State's District Public Information Office (PIO) to resolve any issues from the public.

DELIVERABLES

The Engineer shall provide the following:

- Pre-Construction Conference Agenda and Roster
- Partnering Pledge
- QA and QC quality control plan
- Quarterly QA and QC quality control checks
- *Monthly schedule of predicted manpower*
- Graph showing the estimated, actual, and budgeted manpower

Note: Due dates and format of deliverables will be determined by the State's districts.

ATTACHMENT D
D-1
WORK AUTHORIZATION NO. _____
CONTRACT FOR ENGINEERING SERVICES

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 5 of Engineering Contract No. _____ (the Contract) entered into by and between the State of Texas, acting by and through the Texas Department of Transportation (the State), and _____ (the Engineer).

PART I. The Engineer will perform engineering services generally described as _____ in accordance with the project description attached hereto and made a part of this Work Authorization. The responsibilities of the State and the Engineer as well as the work schedule are further detailed in exhibits A, B and C which are attached hereto and made a part of the Work Authorization.

PART II. The maximum amount payable under this Work Authorization is \$ _____ and the method of payment is _____ as set forth in Attachment E of the Contract. This amount is based upon fees set forth in Attachment E, Fee Schedule, of the Contract and the Engineer's estimated Work Authorization costs included in Exhibit D, Fee Schedule, which is attached and made a part of this Work Authorization.

PART III. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Articles 3 thru 5 of the contract, and Attachment A, Article 1.

PART IV. This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate on _____, unless extended by a supplemental Work Authorization as provided in Attachment A, Article 1.

The maximum contract time is the time needed to complete all work authorizations that will be issued in the first two years of the contract. All work authorizations must be issued within the initial two-year period, starting from the contract execution date.

PART V. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

IN WITNESS WHEREOF, this Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER**THE STATE OF TEXAS**

(Signature)

(Printed Name)

(Title)

(Date)

(Signature)

(Printed Name)

(Title)

(Date)

LIST OF EXHIBITS

Exhibit A	Services to be provided by the State
Exhibit B	Services to be provided by the Engineer
Exhibit C	Work Schedule
Exhibit D	Fee Schedule/Budget
Exhibit H-2	Subprovider Monitoring System Commitment Agreement

ATTACHMENT D
D-2
SUPPLEMENTAL WORK AUTHORIZATION NO. ____
WORK AUTHORIZATION NO. ____
CONTRACT FOR ENGINEERING SERVICES

THIS SUPPLEMENTAL WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 5 Contract No. _____ hereinafter identified as the "Contract," entered into by and between the State of Texas, acting by and through the Texas Department of Transportation (the State), and _____ (the Engineer).

The following terms and conditions of Work Authorization No. ____ are hereby amended as follows:

This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. ____ not hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this Supplemental Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER

(Signature)

(Printed Name)

(Title)

(Date)

THE STATE OF TEXAS

(Signature)

(Printed Name)

(Title)

(Date)

ATTACHMENT E

FEE SCHEDULE (Final Cost Proposal)

This attachment provides the basis of payment and fee schedule. **The basis of payment for this contract is indicated by an "X" in the applicable box.** The basis shall be supported by the Final Cost Proposal (FCP) shown below. If more than one basis of payment is used, each one must be supported by a separate FCP.

"X"	Basis	
<input type="checkbox"/>	Lump Sum	The lump sum shall be equal to the maximum amount payable. The lump sum includes all direct and indirect costs and fixed fee. The Engineer shall be paid pro rata based on the percentage of work completed. For payment the Engineer is not required to provide evidence of actual hours worked, travel, overhead rates or other evidence of cost.
<input checked="" type="checkbox"/>	Unit Cost	The unit cost(s) for each type of unit and number of units are shown in the FCP. The unit cost includes all direct and indirect costs and fixed fee. The Engineer shall be paid based on the type and number of units fully completed and the respective unit cost. For payment, the Engineer is not required to provide evidence of actual hours worked, travel, overhead rates or any other cost data. The FCP may include special items, such as equipment which are not included in the unit costs. Documentation of these special costs may be required. The maximum amount payable equals the total of all units times their respective unit cost plus any special direct items shown.
<input checked="" type="checkbox"/>	Specified Rate Basis	The specified rates for each type of labor are shown in the FCP below. The FCP may include special items, such as equipment which are not included in the specified rates. Payment shall be based on the actual hours worked multiplied by the specified rate for each type of labor plus other agreed to special direct cost items. The specified rate includes direct labor and indirect cost and fixed fee. The State may request documentation of reimbursable direct costs including hours worked. Documentation of special item costs may be required. The specified rate is not subject to audit.
<input type="checkbox"/>	Cost Plus Fixed Fee	<p>Payment shall be based on direct and indirect costs incurred <u>plus a pro rata share of the fixed fee based on the ratio of labor and overhead cost incurred to total estimated labor and overhead cost in the FCP</u> or the percentage of work completed. The invoice must itemize labor rates, hours worked, other direct costs and indirect costs. The Engineer may be required to provide documentation of hours worked and any eligible direct costs claimed. The provisional overhead rate charged is subject to audit and adjustment to actual rates incurred. The FCP below shows the hourly rates for labor, other direct expenses including but not limited to travel and allowable materials, provisional overhead rate and the fixed fee.</p> <p style="margin-left: 40px;">___A. Actual Cost Plus Fixed Fee - Actual wages are paid (no minimum, no maximum. This option does not apply to Indefinite Deliverable Contracts.)</p> <p style="margin-left: 40px;">___B. Range of Cost Plus Fixed Fee – Actual wages <u>must</u> be within the allowable range shown on the Final Cost Proposal.</p>

ATTACHMENT E – FEE SCHEDULE

Final Cost Proposal (FCP) Supporting Basis of Payment

* The **MAXIMUM AMOUNT PAYABLE** is **\$3,500,000.00**.

The maximum amount payable is based on the following data and calculations:

* Maximum amount payable must be negotiated for each work authorization.

ATTACHMENT E - FEE SCHEDULE			
OTHER DIRECT EXPENSES			
Rates Shown Apply To Prime Provider and All Subproviders			
Services To Be Provided	Unit	Fixed Cost	Maximum Cost
Lodging/Hotel (Taxes/fees not included)	day/person		Current State Rate
Lodging/Hotel - Taxes and Fees	day/person		\$ 35.00
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person		Current State Rate
Mileage	mile	Current State Rate	
Rental Car (Includes taxes and fees; Insurance costs will not be reimbursed)	day		\$ 55.00
SUV or ATV Rental (Includes taxes and fees; Insurance costs will not be reimbursed)	day		\$ 110.00
Rental Car Fuel	gallon		\$ 3.75
Air Travel (Use with Indefinite Deliverable Contracts)	Rd Trip/person		COACH FARE
Oversize, special handling or extra baggage airline fees (with advance coordination with TxDOT)	each		Current Airline Rate
Taxi/Cab fare	each/person		\$ 30.00
Parking	day		\$ 15.00
Toll Charges	each		\$ 2.00
Standard Postage	letter	Current Postal Rate	
Certified Letter Return Receipt	each	Current Postal Rate	
Overnight Mail - letter size	each		Current Postal Rate
Overnight Mail - oversized box	each		\$ 30.00
Materials and Shipping	Per Package		\$ 25.00
Courier Services	each		\$ 25.00
Photocopies B/W (8 1/2" X 11")	each	\$ 0.10	
Photocopies B/W (11" X 17")	each	\$ 0.20	
Photocopies Color (8 1/2" X 11")	each	\$ 0.74	
Photocopies Color (11" X 17")	each	\$ 0.40	
Cardstock Color (8 1/2" X 11")	each	\$ 1.00	
Digital Ortho Plotting	sheet	\$ 1.25	
Plots (B/W on Bond)	square foot	\$ 0.50	
Plots (Color on Bond)	square foot	\$ 1.00	
Plots (Color on Photographic Paper)	square foot	\$ 4.00	
Color Graphics on Foam Board	square foot	\$ 4.00	
Presentation Boards 30" X 40" Color Mounted	each		\$ 60.66
Report Printing	each		\$ 25.00
Report Binding and Tabbing	each	\$ 4.25	
Notebooks	each		\$ 5.00
Reproduction of CD/DVD	each		\$ 3.00
CDs	each	\$ 1.00	
4" X 6" Digital Color Print	picture	\$ 0.25	
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		\$ 30.00
Railroad - Flagger (Service provided by RR)	Hour		\$ 60.00
Railroad - Insurance in addition to STD Minimum Required (Minimum coverage of \$1 Million required by RR.)	each		\$ 500.00
Railroad - Permit	each		\$ 500.00
Railroad - Safety Training (If required - Heavy Rail Safety Training Certificate, includes classroom training and employee certification card.)	per person		\$ 150.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Small Project (Includes labor, equipment and fuel)	day		\$ 1,000.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Medium Project (Includes labor, equipment and fuel)	day		\$ 1,500.00

ATTACHMENT E - FEE SCHEDULE			
OTHER DIRECT EXPENSES			
Rates Shown Apply To Prime Provider and All Subproviders			
Services To Be Provided	Unit	Fixed Cost	Maximum Cost
Traffic Control Services, Arrow Boards and Attenuator trucks - Large Project (Includes labor, equipment and fuel)	day		\$ 2,000.00
Attenuator trucks - (Lane/Shoulder Closure) (Includes labor, equipment and fuel)	day		\$ 410.00
Attenuator trucks - (No Lane Closure) (Includes labor, equipment and fuel)	day		\$ 300.00
Flashing Arrow Board	day		\$ 120.00
Portable Message Board	day		\$ 200.00
Law Enforcement/Uniform Officer (including vehicle)	hour		\$ 55.00
Required Permit Fees (non- railroad)	each		\$ 75.00
Boat with Motor	day		\$ 150.00
Backhoe Rental	day		\$ 900.00
Hazardous Materials Database Search	per search		\$ 325.00
FEMA FIS Backup Data Request	each		\$ 300.00
FEMA FIS (Manual)	each		\$ 5.00
GPS Receiver (rates applied to actual time GPS units are in use)	hour		\$ 20.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	\$ 20.00	
GPS Static (rates applied to actual time GPS units are in use)	hour	\$ 20.00	
Construction Truck (Includes operation, and maintenance costs; Insurance costs will not be reimbursed)	day	\$ 80.00	
Construction Truck (Includes operation, and maintenance costs; Insurance costs will not be reimbursed)	month	\$ 1,400.00	
Construction Truck 4X4 (Includes operation and maintenance costs; Insurance costs will not be reimbursed)	day		\$ 125.00
Construction Truck 4x4 (Includes operation and maintenance costs; Insurance costs will not be reimbursed)	month		\$ 1,800.00
Mobilization/Demobilization Laboratory	each		\$ 2,100.00
AASHTO Accreditation Aggregates Laboratory	each		\$ 6,500.00
AASHTO Accreditation Hot Mix Laboratory	each		\$ 7,500.00
AASHTO Accreditation Soil Laboratory	each		\$ 6,500.00
CCRL Accreditation	each		\$ 11,000.00
Equipment Calibration	each		\$ 1,000.00
Office Trailer Rental	each		\$ 600.00
Cylinder Molds	each	\$ 1.00	
Field Laboratory Equipment Rental	each/month		\$ 3,000.00
Profit not allowed on Other Direct Expenses.			
<p>For Cost Plus Fixed Fee, Specified Rate, and Unit Cost - Unless fixed, actual rates to be billed not to exceed the maximum shown. Documentation such as receipts or usage logs for other direct expenses are necessary for reimbursement, except for meals. For Lump Sum - No documentation required. Invoicing by physical percent complete includes combination of direct labor and other direct expenses.</p>			
<p>NOTE: For Cost Plus Fixed Fee, Specified Rate, and Unit Cost - Miscellaneous other direct expenses up to \$100 per unit will be reimbursed at cost if approved and documented in advance by the State's Project Manager. Miscellaneous other direct expenses of \$100 per unit or more will not be reimbursed unless a supplemental agreement to the contract and work authorization (if WAs are used) has been executed in advance authorizing the miscellaneous other direct expenses. No more than \$2,500 in miscellaneous other direct expenses may be approved by the State's Project Manager over the life of this contract including prime provider and subproviders. For Lump Sum - This statement does not apply.</p>			

ATTACHMENT E - FEE SCHEDULE			
SPECIFIED RATE PAYMENT BASIS			
PRIME PROVIDER NAME:		H.W. Lochner, Inc.	
Direct Labor			
Labor/Staff Classification	Years of Experience	Hourly Base Rate	Hourly Contract Rate
OFFICE PERSONNEL			
Senior Project Manager	20+	\$ 75.00	\$ 234.56
Senior Engineer	15+	\$ 62.00	\$ 193.91
Project Engineer	10 to 15	\$ 50.00	\$ 156.38
Design Engineer	5 to 10	\$ 45.00	\$ 140.74
Senior Structural Engineer	20+	\$ 60.00	\$ 187.65
Engineer-In-Training	1 to 5	\$ 33.00	\$ 103.21
Senior Engineer Tech	15+	\$ 38.00	\$ 118.85
Engineer Tech	5 to 15	\$ 30.00	\$ 93.83
Junior Engineer Tech	1 to 5	\$ 22.00	\$ 68.81
Senior CADD Operator	15+	\$ 31.00	\$ 96.95
CADD Operator	5 to 15	\$ 28.00	\$ 87.57
Junior CADD Operator	1 to 5	\$ 22.00	\$ 68.81
Admin/Clerical		\$ 21.50	\$ 67.24
Senior Utilities Coordinator	15+	\$ 44.00	\$ 137.61
Utilities Coordinator		\$ 35.00	\$ 109.46
Utility Engineer		\$ 44.00	\$ 137.61
Records Keeper		\$ 32.00	\$ 100.08
		\$ -	\$ -
FIELD PERSONNEL			
Resident Engineer	15+	\$ 55.00	\$ 138.51
Field Engineer	5 to 10	\$ 44.00	\$ 110.81
Senior Structural Inspector*	15+	\$ 50.00	\$ 125.92
Structural Inspector*	5+	\$ 38.00	\$ 95.70
Senior Construction Inspector*	15+	\$ 45.00	\$ 113.33
Construction Inspector III*	10 to 15	\$ 38.00	\$ 95.70
Construction Inspector II*	5 to 10	\$ 32.00	\$ 80.59
Construction Inspector I*	1 to 5	\$ 26.00	\$ 65.48
Senior Utilities Field Coordinator*	15+	\$ 38.00	\$ 95.70
Utilities Field Coordinator*		\$ 35.00	\$ 88.15
Utilities Field Inspector*		\$ 35.00	\$ 88.15
Utilities Field Engineer		\$ 44.00	\$ 110.81
Environmental Inspector*	5+	\$ 30.00	\$ 75.55
Records Keeper*		\$ 32.00	\$ 80.59
Senior Geologist*	15+	\$ 35.00	\$ 88.15
Geologist*	5 to 15	\$ 28.00	\$ 70.52
		\$ -	\$ -
INDIRECT COST RATE - OFFICE:		184.32%	
INDIRECT COST RATE - FIELD:		128.95%	
PROFIT RATE:		10.0%	
* OVERTIME (OT) will only be allowed for field services involving inspection and testing. Prior to working OT, the provider must obtain written approval from the State's Project Manager (PM). For invoicing purposes, an e-mail approval from the State's PM may serve as documentation for reimbursement.			
Contract rates include labor, overhead, and profit.			
All rates are negotiated rates and are not subject to change or adjustment.			
Specified Rate Payment Basis - Contract rates to be billed. Documentation of hours must be maintained and is subject to audit.			
Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.			

ATTACHMENT E - FEE SCHEDULE		
SPECIFIED RATE AND LUMP SUM PAYMENT BASIS		
SUBPROVIDER NAME:		Cox McLain Environmental Consulting, Inc.
Direct Labor		
Labor/Staff Classification	Years of experience	Hourly Contract Rate
OFFICE PERSONNEL		
Project Manager	10 to 20	\$ 148.00
Senior Engineer	15+	\$ 135.00
Project Engineer	10 to 15	\$ 108.00
Design Engineer	5 to 10	\$ 92.00
Senior Structural Engineer	20+	\$ 154.00
Engineer-In-Training	1 to 5	\$ 75.00
Senior Engineer Tech	15+	\$ 86.00
Engineer Tech	5 to 15	\$ 67.00
Junior Engineer Tech	1 to 5	\$ 48.00
Senior CADD Operator	15+	\$ 67.00
CADD Operator	5 to 15	\$ 59.00
Junior CADD Operator	1 to 5	\$ 43.00
Senior Scheduler	15+	\$ 124.00
Scheduler		\$ 102.00
Admin/Clerical		\$ 48.00
Senior Utilities Coordinator	15+	\$ 92.00
Utilities Coordinator		\$ 75.00
Utility Engineer		\$ 94.00
Abstractor (Property Deed Researcher, Courthouse, or Internet Research)		\$ 56.00
		\$ -
FIELD PERSONNEL		
Resident Engineer	15+	\$ 116.00
Field Engineer	5 to 10	\$ 80.00
Senior Structural Inspector*	15+	\$ 96.00
Structural Inspector*	5+	\$ 82.00
Senior Construction Inspector*	15+	\$ 71.00
Construction Inspector III*	10 to 15	\$ 66.00
Construction Inspector II*	5 to 10	\$ 59.00
Construction Inspector I*	1 to 5	\$ 50.00
Senior Utilities Field Coordinator*	15+	\$ 77.00
Utilities Field Coordinator*		\$ 64.00
Utilities Field Inspector*		\$ 64.00
Utilities Field Engineer		\$ 80.00
Environmental Inspector*	5+	\$ 78.00
Records Keeper*		\$ 52.00
Senior Geologist*	15+	\$ 80.00
Geologist*	5 to 15	\$ 64.00
Geologist-in-Training*	1 to 5	\$ 52.00
		\$ -
<p>* OVERTIME (OT) will only be allowed for field services involving inspection and testing. Prior to working OT, the provider must obtain written approval from the State's Project Manager (PM). For invoicing purposes, an e-mail approval from the State's PM may serve as documentation for reimbursement.</p> <p>Contract rates include labor, overhead, and profit.</p> <p>All rates are negotiated rates and are not subject to change or adjustment.</p> <p>Specified Rate Payment Basis - Contract rates to be billed. Documentation of hours must be maintained and is subject to audit.</p> <p>Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.</p>		

ATTACHMENT E - FEE SCHEDULE**SPECIFIED RATE PAYMENT BASIS**

SUBPROVIDER NAME:

Foster CM Group, Inc.

Direct Labor

Labor/Staff Classification	Years of Experience	Hourly Base Rate	Hourly Contract Rate
OFFICE PERSONNEL			
Project Manager	10 to 20	\$ 64.90	\$ 164.31
Senior Scheduler	15+	\$ 50.00	\$ 126.59
Scheduler		\$ 42.00	\$ 106.33
		\$ -	\$ -
FIELD PERSONNEL			
Structural Inspector*	5+	\$ 37.50	\$ 93.13
Senior Construction Inspector*	15+	\$ 34.16	\$ 84.83
Construction Inspector III*	10 to 15	\$ 33.00	\$ 81.95
Construction Inspector II*	5 to 10	\$ 30.00	\$ 74.50
Construction Inspector I*	1 to 5	\$ 28.61	\$ 71.05
Environmental Inspector*	5+	\$ 32.00	\$ 79.47
Records Keeper*		\$ 32.70	\$ 81.21
		\$ -	\$ -
INDIRECT COST RATE - OFFICE:		130.16%	
INDIRECT COST RATE - FIELD:		125.76%	
PROFIT RATE:		10.0%	

* OVERTIME (OT) will only be allowed for field services involving inspection and testing. Prior to working OT, the provider must obtain written approval from the State's Project Manager (PM). For invoicing purposes, an e-mail approval from the State's PM may serve as documentation for reimbursement.

Contract rates include labor, overhead, and profit.

All rates are negotiated rates and are not subject to change or adjustment.

Specified Rate Payment Basis - Contract rates to be billed. Documentation of hours must be maintained and is subject to audit.

Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.

ATTACHMENT E - FEE SCHEDULE**SPECIFIED RATE PAYMENT BASIS**

SUBPROVIDER NAME: Infrastructure Associates, Inc.

Direct Labor

Labor/Staff Classification	Years of Experience	Hourly Base Rate	Hourly Contract Rate
OFFICE PERSONNEL			
Senior Project Manager	20+	\$ 70.00	\$ 189.62
Senior Scheduler	15+	\$ 62.00	\$ 167.95
Scheduler		\$ 46.00	\$ 124.61
Admin/Clerical		\$ 21.00	\$ 56.89
		\$ -	\$ -
FIELD PERSONNEL			
Construction Inspector III*	10 to 15	\$ 43.00	\$ 108.87
Construction Inspector II*	5 to 10	\$ 33.00	\$ 83.55
Construction Inspector I*	1 to 5	\$ 28.00	\$ 70.89
		\$ -	\$ -
INDIRECT COST RATE - OFFICE:		146.26%	
INDIRECT COST RATE - FIELD:		130.16%	
PROFIT RATE:		10.0%	

* OVERTIME (OT) will only be allowed for field services involving inspection and testing. Prior to working OT, the provider must obtain written approval from the State's Project Manager (PM). For invoicing purposes, an e-mail approval from the State's PM may serve as documentation for reimbursement.

Contract rates include labor, overhead, and profit.

All rates are negotiated rates and are not subject to change or adjustment.

Specified Rate Payment Basis - Contract rates to be billed. Documentation of hours must be maintained and is subject to audit.

Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.

ATTACHMENT E - FEE SCHEDULE			
SPECIFIED RATE PAYMENT BASIS			
SUBPROVIDER NAME:		Lamb-Star Engineering, LP	
Direct Labor			
Labor/Staff Classification	Years of Experience	Hourly Base Rate	Hourly Contract Rate
OFFICE PERSONNEL			
Project Manager	10 to 20	\$ 55.00	\$ 186.53
Senior Engineer	15+	\$ 50.00	\$ 169.58
Project Engineer	10 to 15	\$ 40.00	\$ 135.66
Design Engineer	5 to 10	\$ 34.00	\$ 115.31
Senior Structural Engineer	20+	\$ 57.00	\$ 193.32
Engineer-In-Training	1 to 5	\$ 28.00	\$ 94.96
Senior Engineer Tech	15+	\$ 32.00	\$ 108.53
Engineer Tech	5 to 15	\$ 25.00	\$ 84.79
Junior Engineer Tech	1 to 5	\$ 18.50	\$ 62.74
Senior CADD Operator	15+	\$ 27.25	\$ 92.42
CADD Operator	5 to 15	\$ 23.75	\$ 80.55
Junior CADD Operator	1 to 5	\$ 20.00	\$ 67.83
Admin/Clerical		\$ 18.00	\$ 61.05
Senior Utilities Coordinator	15+	\$ 39.00	\$ 132.27
Utilities Coordinator		\$ 31.00	\$ 105.14
Utility Engineer		\$ 38.00	\$ 128.88
		\$ -	\$ -
FIELD PERSONNEL			
Resident Engineer	15+	\$ 63.00	\$ 165.89
Field Engineer	5 to 10	\$ 40.00	\$ 105.33
Senior Structural Inspector*	15+	\$ 43.00	\$ 113.23
Structural Inspector*	5+	\$ 38.00	\$ 100.06
Senior Construction Inspector*	15+	\$ 43.00	\$ 113.23
Construction Inspector III*	10 to 15	\$ 35.00	\$ 92.16
Construction Inspector II*	5 to 10	\$ 30.00	\$ 79.00
Construction Inspector I*	1 to 5	\$ 24.00	\$ 63.20
Senior Utilities Field Coordinator*	15+	\$ 38.00	\$ 100.06
Utilities Field Coordinator*		\$ 43.00	\$ 113.23
Utilities Field Inspector*		\$ 24.00	\$ 63.20
Utilities Field Engineer		\$ 45.00	\$ 118.49
Environmental Inspector*	5+	\$ 31.00	\$ 81.63
Records Keeper*		\$ 29.00	\$ 76.36
		\$ -	\$ -
INDIRECT COST RATE - OFFICE:		208.32%	
INDIRECT COST RATE - FIELD:		139.38%	
PROFIT RATE:		10.0%	
* OVERTIME (OT) will only be allowed for field services involving inspection and testing. Prior to working OT, the provider must obtain written approval from the State's Project Manager (PM). For invoicing purposes, an e-mail approval from the State's PM may serve as documentation for reimbursement.			
Contract rates include labor, overhead, and profit.			
All rates are negotiated rates and are not subject to change or adjustment.			
Specified Rate Payment Basis - Contract rates to be billed. Documentation of hours must be maintained and is subject to audit.			
Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.			

ATTACHMENT E - FEE SCHEDULE			
SPECIFIED RATE PAYMENT BASIS			
SUBPROVIDER NAME:		PaveTex Engineering and Testing, Inc.	
Direct Labor			
Labor/Staff Classification	Years of Experience	Hourly Base Rate	Hourly Contract Rate
OFFICE PERSONNEL			
Senior Project Manager	20+	\$ 65.00	\$ 196.63
Senior Engineer	15+	\$ 59.00	\$ 178.48
Project Engineer	10 to 15	\$ 49.00	\$ 148.23
Engineer-In-Training	1 to 5	\$ 33.00	\$ 99.83
Senior Engineer Tech	15+	\$ 38.00	\$ 114.95
Engineer Tech	5 to 15	\$ 30.00	\$ 90.75
Junior Engineer Tech	1 to 5	\$ 24.00	\$ 72.60
Admin/Clerical		\$ 21.00	\$ 63.53
		\$ -	\$ -
FIELD PERSONNEL			
Field Engineer	5 to 10	\$ 40.00	\$ 112.64
Senior Structural Inspector*	15+	\$ 52.00	\$ 146.43
Structural Inspector*	5+	\$ 39.00	\$ 109.82
Senior Construction Inspector*	15+	\$ 40.00	\$ 112.64
Construction Inspector III*	10 to 15	\$ 39.00	\$ 109.82
Construction Inspector II*	5 to 10	\$ 31.00	\$ 87.30
Construction Inspector I*	1 to 5	\$ 25.00	\$ 70.40
Senior Utilities Field Coordinator*	15+	\$ 48.00	\$ 135.17
Utilities Field Inspector*		\$ 39.00	\$ 109.82
Utilities Field Engineer		\$ 42.00	\$ 118.27
Environmental Inspector*	5+	\$ 30.00	\$ 84.48
Records Keeper*		\$ 28.00	\$ 78.85
		\$ -	\$ -
INDIRECT COST RATE - OFFICE:		175.00%	
INDIRECT COST RATE - FIELD:		156.00%	
PROFIT RATE:		10.0%	
<p>* OVERTIME (OT) will only be allowed for field services involving inspection and testing. Prior to working OT, the provider must obtain written approval from the State's Project Manager (PM). For invoicing purposes, an e-mail approval from the State's PM may serve as documentation for reimbursement.</p> <p>Contract rates include labor, overhead, and profit.</p> <p>All rates are negotiated rates and are not subject to change or adjustment.</p> <p>Specified Rate Payment Basis - Contract rates to be billed. Documentation of hours must be maintained and is subject to audit.</p> <p>Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.</p>			

ATTACHMENT E - FEE SCHEDULE
UNIT COST PAYMENT BASIS

SUBPROVIDER NAME: Lamb-Star Engineering, LP		
SERVICES TO BE PROVIDED	UNIT	COST
SUE (Quality Level C and D) Includes labor and equipment for records research, CADD, and mapping.	LF	\$ 0.45
SUE (Quality Level B - Utility Designation) Includes labor and equipment for records research, designating, engineering, surveying, CADD mapping and limited traffic control.	LF	\$ 1.40
SUE (Quality Level A - Utility Locate, Test Holes) Includes labor and equipment for vacuum excavation, engineering, surveying, CADD, and limited traffic control. These prices reflect that a Quality Level B service has been provided.		
Level A: 0 to 5 ft.	each	\$ 950.00
Level A: > 5 to 8 ft.	each	\$ 1,200.00
Level A: > 8 to 13 ft.	each	\$ 1,550.00
Level A: > 13 to 20 ft.	each	\$ 1,900.00
Level A: > 20 ft.	VF	\$ 100.00
SUE Mobilization/Demobilization These costs are intended to be a one-time expense compensation for mobilizing/demobilizing personnel and equipment portal to portal. Vacuum excavation truck (non-local)	Mile	\$ 4.00

Note: When the above unit prices are not utilized, the following appropriate rates will apply

SERVICES TO BE PROVIDED	UNIT	COST
Subsurface Utility Engineering (SUE) Field Services		
Interior pipe wall condition video (equipment only)(for small pipe from 12" to 24" in diameter)	day	\$ 350.00
Interior pipe wall condition video (equipment only)(for pipe larger than 24" in diameter)	hour	\$ 700.00
Ground Penetrating Radar (GPR) (equipment only)	hour	\$ 55.00
One (1) Designating Person with equipment	hour	\$ 100.00
Two (2) Designating Person with equipment	hour	\$ 150.00

The unit costs shown include labor, overhead, and profit. Payment based on units completed. No partial payments.

All unit costs are negotiated costs and are not subject to change or adjustment.

Unit Cost Payment Basis: If unit costs by year are included, unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done.

Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.

WAs Used

ATTACHMENT E - FEE SCHEDULE			
UNIT COST PAYMENT BASIS			
SUBPROVIDER NAME:		PaveTex Engineering and Testing, Inc.	
SERVICES TO BE PROVIDED	TEST CODE	UNIT	COST
Soils Tests			
Determining Moisture Content in Soil Materials	Tex-103-E	each	\$ 13.00
Determining Liquid Limits of Soils	Tex-104-E	each	\$ 35.00
Determining Plastic Limit of Soils	Tex-105-E	each	\$ 35.00
Determining the Bar Linear Shrinkage of Soils	Tex-107-E	each	\$ 40.00
Determining the Specific Gravity of Soils	Tex-108-E	each	\$ 50.00
Particle Size Analysis of Soils	Tex-110-E	each	\$ 70.00
Determining the Amount of Material in Soils Finer than the 75 micrometer (No. 200) Sieve	Tex-111-E	each	\$ 45.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of Base Materials	Tex-113-E	each	\$ 270.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade, Embankment Soils, and Backfill Material	Tex-114-E	each	\$ 280.00
Field Method for Determining In-Place Density of Soils and Base Materials	Tex-115-E	each	\$ 50.00
Ball Mill Method for Determining the Disintegration of Flexible Base Material	Tex-116-E	each	\$ 180.00
Triaxial Compression Test for Disturbed Soils and Base Materials	Tex-117-E	each	\$ 2,000.00
Soil-Cement Testing	Tex-120-E	each	\$ 300.00
Soil-Lime Testing	Tex-121-E	each	\$ 300.00
Determining Soil pH	Tex-128-E	each	\$ 34.00
Measuring the Resistivity of Soil Materials	Tex-129-E	each	\$ 85.00
Slurry Testing	Tex-130-E	each	\$ 45.00
Determining Sulfate Content in Soils - Colorimetric Method	Tex-145-E	each	\$ 85.00
Unconfined Compressive Test of Cohesive Soil	ASTM D2166	each	\$ 55.00
One-Dimensional Consolidation	ASTM D2435	each	\$ 200.00
Soil Direct Shear (CD) Clay	ASTM D3080	each	\$ 555.00
Swell tests (Free Swell)	ASTM D4546	each	\$ 125.00
Swell tests (Pressure Swell)	ASTM D4646	each	\$ 200.00
Bituminous Tests			
Sieve Analysis for Fine and Coarse Aggregate	Tex-200-F	each	\$ 60.00
Bulk Specific Gravity and Water Absorption of Aggregate	Tex-201-F	each	\$ 75.00
Apparent Specific Gravity of Material Finer than No. 50 Sieve	Tex-202-F	each	\$ 65.00
Sand Equivalent	Tex-203-F	each	\$ 85.00
Design of Bituminous Mixtures	Tex-204-F	each	\$ 1,600.00
Laboratory Method of Mixing Bituminous Mixtures	Tex-205-F	set of 3	\$ 70.00
Compacting Specimens Using the Texas Gyrotory Compactor (TGC)	Tex-206-F	set of 3	\$ 60.00
Determining Density of Compacted Bituminous Mixtures	Tex-207-F (Part I)	each	\$ 35.00
Test of Stabilometer Value of Bituminous Mixtures	Tex-208-F	set of 3	\$ 100.00
Determining Asphalt Content of Bituminous by Extraction	Tex-210-F	each	\$ 175.00
Determining Deleterious Material and Decantation Test for Coarse Aggregates	Tex-217-F	each	\$ 85.00
Theoretical Maximum Specific Gravity of Bituminous Mixtures	Tex-227-F	each	\$ 75.00
Determining Asphalt Content from Asphalt Paving Mixtures by the Ignition Method	Tex-236-F	each	\$ 150.00
Superpave Gyrotory Compacting of Test Specimens of Bituminous Mixtures	Tex-241-F	set of 2	\$ 100.00
Determining Flat and Elongated Particles	Tex-280-F	each	\$ 95.00
Concrete & Aggregate Tests			
Sieve Analysis of Fine and Coarse Aggregate	Tex-401-A	each	\$ 60.00
Fineness Modulus of Fine Aggregate	Tex-402-A	each	\$ 60.00
Saturated Surface-Dry Specific Gravity and Absorption of Aggregates	Tex-403-A	each	\$ 65.00
Determining Unit Mass (Weight) of Aggregates	Tex-404-A	each	\$ 55.00
Determining Percent Voids and Solids in Concrete	Tex-405-A	each	\$ 60.00
Material Finer than 75 micrometer (No. 200) Sieve in Mineral Aggregates (Decantation Test for Concrete Aggregates)	Tex-406-A	each	\$ 65.00
Organic Impurities in Fine Aggregate for Concrete	Tex-408-A	each	\$ 65.00
Free Moisture and Water Absorption in Aggregate for Concrete	Tex-409-A	each	\$ 50.00
Abrasion of Coarse Aggregate Using the Los Angeles Machine	Tex-410-A	each	\$ 195.00
Soundness of Aggregate Using Sodium Sulfate or Magnesium Sulfate	Tex-411-A	each	\$ 200.00
Determining Deleterious Material in Mineral Aggregate	Tex-413-A	each	\$ 75.00
Compressive Strength of Cylindrical Concrete Specimens	Tex-418-A	each	\$ 20.00
Determining Compressive Strength of Grouts	Tex-442-A	each	\$ 30.00
Making and Curing Concrete Test Specimens	Tex-447-A	each	\$ 50.00
Determining Crushed Face Particle Count	Tex-460-A	each	\$ 70.00
The unit costs shown include labor, overhead, and profit. Payment based on units completed. No partial payments.			
All unit costs are negotiated costs and are not subject to change or adjustment.			
Unit Cost Payment Basis: If unit costs by year are included, unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done.			
Note: Any direct labor, unit cost, or other direct expense classification included in the contract, but not in a work authorization, is not eligible for payment under that work authorization.			

ATTACHMENT F

Not Applicable

ATTACHMENT G

Computer Graphics Files for Document and Information Exchange

Not Applicable

ATTACHMENT H-FG
Disadvantaged Business Enterprise (DBE)
for Federal-Aid Professional or Technical Services Contracts

- 1) **PURPOSE.** The purpose of this attachment is to carry out the U.S. Department of Transportation's (DOT) policy of ensuring nondiscrimination in the award and administration of DOT assisted contracts and creating a level playing field on which firms owned and controlled by minority or socially and economically disadvantaged individuals can compete fairly for DOT assisted contracts.
- 2) **POLICY.** It is the policy of the DOT and the Texas Department of Transportation (henceforth the "Department") that Disadvantaged Business Enterprises (DBEs) as defined in 49 CFR Part 26, Subpart A and the Department's Disadvantaged Business Enterprise Program, shall have the opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. Consequently, the Disadvantaged Business Enterprise requirements of 49 CFR Part 26, and the Department's Disadvantaged Business Enterprise Program, apply to this contract as follows.
 - a. The Provider will offer Disadvantaged Business Enterprises, as defined in 49 CFR Part 26, Subpart A and the Department's Disadvantaged Business Enterprise Program, the opportunity to compete fairly for contracts and subcontracts financed in whole or in part with Federal funds. In this regard, the Provider shall make a good faith effort to meet the Disadvantaged Business Enterprise goal for this contract.
 - b. The Provider and any subprovider(s) shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Provider shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. The requirements of this Special Provision shall be physically included in any subcontract.
 - c. When submitting the contract for execution by the Department, the Provider must complete and furnish Exhibit H-1 which lists the commitments made to certified DBE subprovider(s) that are to meet the contract goal and Exhibit H-2 which is a commitment agreement(s) containing the original signatures of the Provider and the proposed DBE(s). For Work Authorization Contracts, Exhibit H-1 is required at the time of submitting the contract for execution by the Department. Exhibit H-2 will be required to be completed and attached with each work authorization number that is submitted for execution, if the DBE will be performing work. Any substitutions or changes to the DBE subcontract amount shall be subject to prior written approval by the Department. If non-DBE subprovider is performing work, insert N/A (not applicable) on the line provided.
 - d. Failure to carry out the requirements set forth above shall constitute a material breach of this contract and may result; in termination of the contract by the Department; in a deduction of the amount of DBE goal not accomplished by DBEs from the money due or to become due to the Provider, not as a penalty but as liquidated damages to the Department; or such other remedy or remedies as the Department deems appropriate.
- 3) **DEFINITIONS.**
 - a. "Department" means the Texas Department of Transportation (TxDOT).
 - b. "Federal-Aid Contract" is any contract between the Texas Department of Transportation and a Provider which is paid for in whole or in part with U. S. Department of Transportation (DOT) financial assistance.
 - c. "Provider" is any individual or company that provides professional or technical services.
 - d. "DBE Joint Venture" means an association a DBE firm and one (1) or more other firm(s) to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks and profits of the joint venture are commensurate with its ownership interest.
 - e. "Disadvantaged Business Enterprise (DBE)" means a firm certified as such by the Department in accordance with 49 CFR Part 26.
 - f. "Good Faith Effort" means efforts to achieve a DBE goal or other requirement of this Special Provision which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.
 - g. "Race-neutral DBE Participation" means any participation by a DBE through customary competitive procurement procedures.

- 4) **PERCENTAGE GOAL.** The goal for Disadvantaged Business Enterprise (DBE) participation in the work to be performed under this contract is **11.7** % of the contract amount.
- 5) **PROVIDER'S RESPONSIBILITIES.** A DBE prime may receive credit toward the DBE goal for work performed by his-her own forces and work subcontracted to DBEs. A DBE prime must make a good faith effort to meet the goals. In the event a DBE prime subcontracts to a non-DBE, that information must be reported to the Department.
 - a. A Provider who cannot meet the contract goal, in whole or in part, shall document the "Good Faith Efforts" taken to obtain DBE participation. The following is a list of the types of actions that may be considered as good faith efforts. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - (1) Soliciting through all reasonable and available means the interest of all certified DBEs who have the capability to perform the work of the contract. The solicitation must be done within sufficient time to allow the DBEs to respond to it. Appropriate steps must be taken to follow up initial solicitations to determine, with certainty, if the DBEs are interested.
 - (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Provider might otherwise prefer to perform the work items with its own forces.
 - (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
 - (4) Negotiating in good faith with interested DBEs by making a portion of the work available to DBE subproviders and suppliers and selecting those portions of the work or material needs consistent with the available DBE subproviders and suppliers.
 - (5) The ability or desire of the Provider to perform the work of a contract with its own organization does not relieve the Provider's responsibility to make a good faith effort. Additional costs involved in finding and using DBEs is not in itself sufficient reason for a Provider's failure to meet the contract DBE goal, as long as such costs are reasonable. Providers are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
 - (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities.
 - (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Provider.
 - (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services.
 - (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
 - (10) If the Department's Director of the Business Opportunity Programs Office determines that the Provider has failed to meet the good faith effort requirements, the Provider will be given an opportunity for reconsideration by the Director of the appropriate Division.

NOTE: The Provider must not cause or allow subproviders to bid their services.

- b. The preceding information shall be submitted directly to the Chair of the Consultant Selection Team responsible for the project.
- c. The Provider shall make all reasonable efforts to honor commitments to DBE subproviders named in the commitment submitted under Section 2.c. of this attachment. Where the Provider terminates or removes a DBE subprovider named in the initial commitment, the Provider must demonstrate on a case-by-case basis to the satisfaction of the department that the originally designated DBE was not able or willing to perform.
- d. The Provider shall make a good faith effort to replace a DBE subprovider that is unable or unwilling to perform successfully with another DBE, to the extent needed to meet the contract goal. The Provider shall submit a completed Exhibit H-2 Form for the substitute firm(s). Any substitution of DBEs shall be subject to prior written approval by the Department. The Department may request a statement from the firm being replaced concerning its replacement prior to approving the substitution.

- e. The Provider shall designate a DBE liaison officer who will administer the DBE program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with DBEs.
- f. Providers are encouraged to investigate the services offered by banks owned and controlled by disadvantaged individuals and to make use of these banks where feasible.

6) **ELIGIBILITY OF DBEs.**

- a. The Department certifies the eligibility of DBEs, DBE joint ventures and DBE truck-owner operators to perform DBE subcontract work on DOT financially assisted contracts.
- b. This certification will be accomplished through the use of the appropriate certification schedule contained in this Department's DBE program.
- c. The Department publishes a Directory of Disadvantaged Business Enterprises containing the names of firms that have been certified to be eligible to participate as DBEs on DOT financially assisted contracts. The directory is available from the Department's Business Opportunity Programs Office. The Texas Unified Certification Program DBE Directory can be found on the Internet at:
http://www.dot.state.tx.us/services/business_opportunity_programs/tucp_dbe_directory.htm.
- d. Only DBE firms certified at the time the contract is signed or at the time the commitments are submitted are eligible to be used in the information furnished by the Provider as required under Section 2.c. and 5.d. above. For purposes of the DBE goal on this contract, DBEs will only be allowed to perform work in the categories of work for which they were certified.

7) **DETERMINATION OF DBE PARTICIPATION.**

A firm must be an eligible DBE and perform a professional or technical function relating to the project. Once a firm is determined to be an eligible DBE, the total amount paid to the DBE for work performed with his/her own forces is counted toward the DBE goal. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the subprovider is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

A DBE subprovider may subcontract no more than 70% of a federal aid contract. The DBE subprovider shall perform not less than 30% of the value of the contract work with assistance of employees employed and paid directly by the DBE; and equipment owned or rented directly by the DBE. DBE subproviders must perform a commercially useful function required in the contract in order for payments to be credited toward meeting the contract goal. A DBE performs a commercially useful function when it is responsible for executing the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. When a DBE is presumed not to be performing a commercially useful function, the DBE may present evidence to rebut this presumption.

A Provider may count toward its DBE goal a portion of the total value of the contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the contract performed by the DBE.

Proof of payment, such as copies of canceled checks, properly identifying the Department's contract number or project number may be required to substantiate the payment, as deemed necessary by the Department.

8) **RECORDS AND REPORTS.**

- a. After submission of the initial commitment reported (Exhibit H-1), required by Section 2.c. of this attachment, the Provider shall submit Monthly Progress Assessment Reports (Exhibit H-3), after contract work begins, on DBE involvement to meet the goal and for race-neutral participation. One copy of each report is to be sent to the Department's Business Opportunity Programs Office monthly, in addition one copy is to be submitted with the Provider's invoice. **Only actual payments made to subproviders are to be reported. These reports will be required until all subprovider activity is completed.** The Department may verify the amounts being reported as paid to DBEs by requesting copies of canceled checks paid to DBEs on a random basis.
- b. DBE subproviders should be identified on the report by name, type of work being performed, the amount of actual payment made to each during the billing period, cumulative payment amount and percentage of the

total contract amount. These reports will be due within fifteen (15) days after the end of a calendar month. Reports are required even when no DBE activity has occurred in a billing period.

- c. All such records must be retained for a period of seven (7) years following final payment or until any investigation, audit, examination, or other review undertaken during the seven (7) years is completed, and shall be available at reasonable times and places for inspection by authorized representatives of the Department or the DOT.
 - d. Prior to receiving final payment, the Provider shall submit a Final Report (Exhibit H-4), detailing the DBE payments. The Final Report is to be sent to the Department's Business Opportunity Programs Office and one (1) copy to be submitted with the Provider's final invoice. If the DBE goal requirement is not met, documentation of the good faith efforts made to meet the goal must be submitted with the Final Report.
- 9) **COMPLIANCE OF PROVIDER.** To ensure that DBE requirements of this DOT-assisted contract are complied with, the Department will monitor the Provider's efforts to involve DBEs during the performance of this contract. This will be accomplished by a review of Monthly Progress Assessment Reports (Exhibit H-3), submitted to the Department's Business Opportunity Programs Office by the Provider indicating his progress in achieving the DBE contract goal, and by compliance reviews conducted by the Department. The Monthly Progress Assessment Report (Exhibit H-3) must be submitted at a minimum monthly to the Business Opportunity Programs Office, in addition to with each invoice to the appropriate agency contact.

The Provider shall receive credit toward the DBE goal based on actual payments to the DBE subproviders with the following exceptions and only if the arrangement is consistent with standard industry practice. The Provider shall contact the Department if he/she withholds or reduces payment to any DBE subprovider.

- (1) A DBE firm is paid but does not assume contractual responsibility for performing the service;
- (2) A DBE firm does not perform a commercially useful function;
- (3) Payment is made to a DBE that cannot be linked by an invoice or canceled check to the contract under which credit is claimed;
- (4) Payment is made to a broker or a firm with a brokering-type operation;
- (5) Partial credit is allowed, in the amount of the fee or commission provided the fee or commission does not exceed that customarily allowed for similar services, for a bona fide service, such as professional, technical, consultant, or managerial services, and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the contract.

A Provider's failure to comply with the requirements of this Special Provision shall constitute a material breach of this contract. In such a case, the Department reserves the right to terminate the contract; to deduct the amount of DBE goal not accomplished by DBEs from the money due or to become due the Provider, not as a penalty but as liquidated damages to the Department; or such other remedy or remedies as the Department deems appropriate.

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EXHIBIT H-1**Texas Department of Transportation
Subprovider Monitoring System
Commitment Worksheet**Contract #: 15-5IDP5005 Assigned Goal: 11.7 % Federally Funded X State Funded _____Prime Provider: H.W. Lochner, Inc. Total Contract Amount: \$3,500,000.00Prime Provider Info: DBE HUB Both Vendor ID #: 1362338811600 DBE/HUB Expiration Date: NA

(First 11 Digits Only)

If no subproviders are used on this contract, please indicate by placing "N/A" on the 1st line under Subproviders.

Subprovider(s) (List All)	Type of Work	Vendor ID # (First 11 Digits Only)	D=DBE H=HUB	Expiration Date	\$ Amount or % of Work *
Cox McLain Environmental Consulting, Inc.	Environmental	12607199796	D H	11/5/2016 8/5/2019	3%
Foster CM Group, Inc.	Inspection and Scheduling Support	17427842137	D H	7/8/2017 5/28/2018	5%
Infrastructure Associates Inc.	Scheduling	17605911167	H	2/20/2019	7%
Lamb-Star Engineering, L.P.	Inspection, SUE, Utility Coordination, Scheduling Support	12037996670	D H	7/14/2017 1/29/2018	12%
Pavetex Engineering and Testing, Inc.	Materials Testing and Geotechnical	17429482064	D H	4/17/2018 4/17/2018	25%
Subprovider(s) Contract or % of Work* Totals					52%

*For Work Authorization Contracts, indicate the % of work to be performed by each subprovider.

Total DBE or HUB Commitment Dollars \$ _____

Total DBE or HUB Commitment Percentages of Contract 45%

(Commitment Dollars and Percentages are for Subproviders only)

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EXHIBIT H-2**Texas Department of Transportation
Subprovider Monitoring System Commitment Agreement**

This commitment agreement is subject to the award and receipt of a signed contract from the Texas Department of Transportation (TxDOT). **NOTE: Exhibit H-2 is required to be attached to each contract that does not include work authorizations. Exhibit H-2 is required to be attached with each work authorization. Exhibit H-2 is also required to be attached to each supplemental work authorization. If DBE/HUB Subproviders are used, the form must be completed and signed. If no DBE/HUB Subproviders are used, indicate with "N/A" on this line: _____ and attach with the work authorization or supplemental work authorization.**

Contract #: _____ Assigned Goal: _____ % Prime Provider: _____

Work Authorization (WA)#: _____ WA Amount: _____ Date: _____

Supplemental Work Authorization (SWA) #: _____ to WA #: _____ SWA Amount: _____

Revised WA Amount: _____

Description of Work (List by category of work or task description. Attach additional pages, if necessary.)	Dollar Amount (For each category of work or task description shown.)
Total Commitment Amount (Including all additional pages.)	\$

IMPORTANT: The signatures of the prime and the DBE/HUB and Second Tier Subprovider, if any (both DBE and Non-DBE) and the total commitment amount must always be on the same page.

Provider Name: Address: Phone # & Fax #: Email:	Name: _____ (Please Print) Title: _____ _____ Signature Date
DBE/HUB Sub Provider Subprovider Name: VID Number: Address: Phone # & Fax #: Email:	Name: _____ (Please Print) Title: _____ _____ Signature Date
Second Tier Sub Provider Subprovider Name: VID Number: Address: Phone # & Fax #: Email:	Name: _____ (Please Print) Title: _____ _____ Signature Date
VID Number is the Vendor Identification Number issued by the Comptroller. If a firm does not have a VID Number, please enter the owner's Social Security or their Federal Employee Identification Number (if incorporated).	

Contract No. 15-5IDP5005

ERP Contract No. 4584

EXHIBIT H-3

Texas Department of Transportation Subprovider Monitoring System for Federally Funded Contracts

Progress Assessment Report for month of (Mo./Yr.) _____ / _____

Contract #: _____

Original Contract Amount: _____

Date of Execution:

Approved Supplemental Agreements: _____

Prime Provider:

Total Contract Amount: _____

Work Authorization No. _____

Work Authorization Amount: _____

If no subproviders are used on this contract, please indicate by placing "N/A" on the 1st line under Subproviders.

[illegible]

Fill out Progress Assessment Report with each estimate/invoice submitted, *for all subcontracts*, and forward as follows:

1 Copy with Invoice - Contract Manager/Managing Office

1 Copy – TxDOT, BOP Office, 125 E. 11th, Austin, TX 78701, 512-486-5500, toll free 866-480-2518, or Fax to 512-486-5519

I hereby certify that the above is a true and correct statement of the amounts paid to the firms listed above.

Print Name - Company Official /DBE Liaison Officer

Signature

Phone

Date _____

Email

Fax

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EXHIBIT H-4

**Texas Department of Transportation
Subprovider Monitoring System
Final Report**

The Final Report Form should be filled out by the Prime Provider and submitted to the Contract Manager and the Business Opportunity Programs Office for review upon completion of the contract. The report should reflect **all subcontract activity** on the project. The report will aid in expediting the final estimate for payment. If the HUB or DBE goal requirements were not met, documentation supporting good faith efforts must be submitted.

DBE Goal: ____%

OR

HUB Goal: %

Total Contract Amount: \$ _____

Total Contract Amount: \$ _____

Contract Number: _____

Vendor ID #	Subprovider	Total \$ Amt Paid to Date
TOTAL		

This is to certify that ____% of the work was completed by the HUB or DBE subproviders as stated above.

By: Prime Provider

Per: Signature

Subscribed and sworn to before me, this _____ day of _____, 20__

Notary Public _____ County

My Commission expires: _____

EXHIBIT H-5**Federal Subprovider and Supplier Information**

The Provider shall indicate below the name, address and phone number of all successful and unsuccessful subproviders and/or suppliers that provided proposals/quotes for this contract prior to execution. You may reproduce this form if additional space is needed.

Name	Address	Phone Number
Cox McLain Environmental Consulting, Inc.	6010 Balcones Dr. Suite 210 Austin, TX 78731	512.338.2223
Foster CM Group, Inc.	8610 N New Braunfels Ave. Suite 606 San Antonio, TX 78217	972.851.100
Infrastructure Associates Inc.	24165 IH 10 West Suite 217-493 San Antonio, TX 78257	713.622.0120
Lamb-Star Engineering, L.P	5700 W. Plano Parkway Suite 1000 Plano, TX 75093	214.440.3600
Pavetex Engineering and Testing, Inc.	3989 Highway 290 East Dripping Springs, TX 78620	512.858.2993

The information must be provided and returned with the contract.


Signature

9/22/15
Date

Gregory G. Evans, PE
Printed Name

gevans@hwlochner.com
Email

512.828.0076
Phone #